



Navy Nuclear Aircraft Carrier (CVN) Homeporting at Mayport: Background and Issues for Congress

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February 21, 2012

Congressional Research Service

7-5700

www.crs.gov

R40248

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 21 FEB 2012		2. REPORT TYPE		3. DATES COVERED 00-00-2012 to 00-00-2012	
4. TITLE AND SUBTITLE Navy Nuclear Aircraft Carrier (CVN) Homeporting at Mayport: Background and Issues for Congress			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Congressional Research Service (CRS),The Library of Congress,101 Independence Avenue, SE,Washington,DC,20540-7500			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 71	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Summary

The Navy's proposed FY2013 budget defers the Navy's plan to homeport a nuclear-powered aircraft carrier (CVN) at Mayport, FL. The Navy's proposed FY2013 budget and the FY2013-FY2017 Future Years Defense Plan (FYDP) contain no funding for Military Construction (MilCon) projects required to homeport a CVN at Mayport. The Navy states: "Although the FY 2013 budget does not contain a construction project supporting the homeporting of a CVN in Mayport, FL, the Department [of the Navy] is committed to the requirement and policy to strategically disperse CVNs on each coast. This is a deferral at this time due to fiscal constraints."

The Navy's five Atlantic Fleet CVNs are all homeported at Norfolk, VA. The Navy wants to establish a second Atlantic Fleet CVN home port by homeporting a CVN at Mayport. Prior to the submission of the FY2013 budget, Navy plans called for having Mayport ready to homeport a CVN in 2019. Transferring a CVN from Norfolk to Mayport would shift from Norfolk to Mayport the local economic activity associated with homeporting a CVN, which some sources estimate as being worth hundreds of millions of dollars per year.

The Navy's desire to homeport a CVN at Mayport is an issue of strong interest to certain Members of Congress from Florida and Virginia. Certain Members of Congress from Florida have expressed support for the Navy's desire to homeport a CVN at Mayport, arguing (as have DOD and the Navy) that the benefits in terms of mitigating risks to the Navy's Atlantic Fleet CVNs are worth the costs associated with moving a CVN to Mayport. Certain Members of Congress from Virginia have expressed skepticism regarding, or opposition to, the Navy's desire to homeport a CVN at Mayport, arguing that the benefits in terms of mitigating risks to the Navy's Atlantic Fleet CVNs are questionable or uncertain, and that the funding needed to implement the proposal could achieve greater benefits if it were spent on other Navy priorities.

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Introduction

This report provides background information and issues for Congress on the Navy's desire to homeport a nuclear-powered aircraft carrier (CVN) at Mayport, FL. Prior to the submission of the FY2013 budget, Navy plans called for having Mayport ready to homeport a CVN in 2019. The Navy's proposed FY2013 budget defers the Navy's plan to homeport a CVN at Mayport. The Navy's proposed FY2013 budget and the FY2013-FY2017 Future Years Defense Plan (FYDP) contain no funding for Military Construction (MilCon) projects required to homeport a CVN at Mayport.¹ The Navy states: "Although the FY 2013 budget does not contain a construction project supporting the homeporting of a CVN in Mayport, FL, the Department [of the Navy] is committed to the requirement and policy to strategically disperse CVNs on each coast. This is a deferral at this time due to fiscal constraints."²

The Navy's desire to homeport a CVN at Mayport is an issue of strong interest to certain Members of Congress from Florida and Virginia. Transferring a CVN from Norfolk, VA, to Mayport would shift from Norfolk to Mayport the local economic activity associated with homeporting a CVN, which some sources estimate as being worth hundreds of millions of dollars per year.

Background

Navy's Aircraft Carrier Force

The Navy operates 11 aircraft carriers, all of them nuclear powered. The five CVNs assigned to the Atlantic fleet are all homeported at Norfolk, VA. The six CVNs assigned to the Pacific Fleet are homeported at San Diego, CA (two ships);³ Everett, WA, and Bremerton, WA, which are both located on Puget Sound (two ships and one ship, respectively);⁴ and Yokosuka, Japan (one ship).⁵

¹ Source for statement regarding funding in the FY2013-FY2017 FYDP: Navy briefing for House Armed Services Committee staff on the Navy's proposed FY2013 budget, February 14, 2012. At the invitation of the committee, CRS staff attended the briefing.

² Department of the Navy, *Highlights of the Department of the Navy FY 2013 Budget*, February 2012, p. 6-3.

³ The three CVNs homeported at San Diego include Carl Vinson (CVN-70), which had been homeported at Newport News, VA, while it underwent a mid-life nuclear refueling overhaul. Following completion of the overhaul, CVN-70 departed Newport News on January 12, 2010, and arrived at San Diego on April 12, 2010.

⁴ Everett and Bremerton are located about 32 nautical miles from one another, on opposite sides of Puget Sound, which leads to the Pacific Ocean. The figure of about 32 nautical miles is the straight-line distance between the two locations, as calculated by the "How Far Is It?" online distance calculator, available at <http://www.indo.com/cgi-bin/dist>.

⁵ These Pacific Fleet CVN homeporting arrangements reflect a December 9, 2010, Navy announcement that the home port of the carrier Nimitz was being transferred from San Diego to Puget Sound. The Nimitz in December 2010 was moved from San Diego to Bremerton for a year-long overhaul and is scheduled to be permanently homeported at Everett when the overhaul is completed in December 2011. ("Navy Announces USS Nimitz Homeport Change to Everett, Wash.," *Navy News Service*, December 9, 2010.)

Although the Navy states that the CVN based at Yokosuka is forward deployed to (rather than homeported at) Yokosuka, the ship is commonly referred to as being homeported or forward-homeported there. The Navy includes Yokosuka on lists of Navy home ports, and does not show an alternate U.S. location as the home port of the ship.

The Navy since the 1960s has been replacing its older conventionally powered carriers (CVs) as they have retired with new CVNs. The Navy achieved an all-CVN carrier force on January 31, 2009, with the retirement of its last operational CV, the *Kitty Hawk* (CV-63). Prior to being decommissioned, the *Kitty Hawk* operated in the Pacific Fleet and was homeported in Yokosuka. The last operational CV in the Atlantic Fleet was the *John F. Kennedy* (CV-67), which was decommissioned on August 1, 2007. Prior to being decommissioned, the *Kennedy* was homeported at Mayport.

Norfolk and Mayport Home Ports

Norfolk

In terms of numbers of ships homeported, Norfolk (known formally as Naval Station [NAVSTA] Norfolk) is the Navy's largest Atlantic Fleet home port. As of early-February 2009, 56 ships of various types—CVNs, attack submarines (SSNs), cruisers (CGs), destroyers, (DDGs), frigates (FFGs), large-deck amphibious assault ships (LHAs/LHDs),⁶ and other amphibious ships (LPDs)—were homeported at Norfolk. The home port at Little Creek, VA, is roughly 7 nautical miles to the east of Norfolk (depending on the exact points used to measure the distance),⁷ on the same side of the Hampton Roads waterway,⁸ and is sometimes referred to as Norfolk (Little Creek). Nine amphibious ships (LSDs) and patrol boats (PCs) were homeported there as of early-February 2009.

Mayport

Mayport is located in northeast Florida, on the Atlantic Coast, near Jacksonville. It is roughly 469 nautical miles south-southwest of Norfolk.⁹ In terms of numbers of ships homeported, Mayport (known formally as NAVSTA Mayport) is the Navy's second-largest Atlantic Fleet home port. As of early-February 2009, 20 CGs, DDGs, and FFGs were homeported at Mayport. Some of these ships, particularly the FFGs, are scheduled for decommissioning over the next few years. The Navy reported to Congress in February 2010 that the service envisages Mayport as the primary Atlantic Fleet homeporting location for the Navy's new Littoral Combat Ships (LCSs). (The report identifies Little Creek, VA, as the Navy's envisaged secondary Atlantic Fleet LCS homeporting location, and Norfolk as the Navy's envisaged tertiary Atlantic Fleet LCS homeporting location.)¹⁰

⁶ LHAs and LHDs resemble medium-sized aircraft carriers and are sometimes referred to as helicopter carriers or (in British parlance) commando carriers.

⁷ This is the straight-line distance measured from maps.

⁸ The home ports of Norfolk and Little Creek are separated by the downtown portion of Norfolk itself.

⁹ This is the straight-line distance between the two locations, as calculated by the "How Far Is It?" online distance calculator, available at <http://www.indo.com/cgi-bin/dist>.

¹⁰ Department of the Navy, *Report on Strategic Plan for Homeporting the Littoral Combat Ship*, February 2010, p. 5. See also Zachary M. Peterson, "Navy Report Outlines Notional Littoral Combat Ship Homeporting Strategy," *Inside the Navy*, March 8, 2010; Christopher P. Cavas, "Mayport To Get First East Coast Littoral Ships," *NavyTimes.com*, March 10, 2010; and Timothy J. Gibbons, "Mayport Lands Combat Ships," *Florida Times-Union (Jacksonville)*, March 11, 2010: 1. For more on the LCS program, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

In addition to homeporting CGs, DDGs, and FFGs, Mayport has also served as a CV home port at various times since the 1950s, and most recently was the home port for the *Kennedy*, until that ship was decommissioned in 2007. Navy records dating back to 1979 indicate that Mayport served as a home port for two CVs (the Forrestal [CV-59] and the Saratoga [CV-60]) in 1979-1980, 1985-1987, and 1989-1991. (During the period 1980-1985, first CV-60 and then CV-59 underwent Service Life Extension Program (SLEP) overhauls at the Philadelphia Naval Shipyard.)¹¹ Homeporting of Navy ships at Mayport reached recent peak of more than 30 ships, including two CVs, in 1987, when the Navy as a whole reached a recent peak of 568 ships, including 15 CVs and CVNs.

Although Mayport has previously serviced as a CV homeport, it has not previously served as a CVN home port, and would require certain facility upgrades to be capable of homeporting a CVN, including dredging and the construction of CVN nuclear propulsion plant maintenance facilities.

Navy's Desire to Establish a CVN Home Port at Mayport

Navy's January 2009 Announcement, DOD Review, and QDR Endorsement

The Navy announced that it wants to establish a second Atlantic Fleet CVN home port by homeporting a CVN at Mayport in a Record of Decision (ROD) document dated January 14, 2009.¹² Later that month, following the change in administrations, Obama Administration officials testified that they would review the proposal.¹³ On April 10, 2009, the Department of Defense (DOD) announced that it had decided to delay a final decision on whether to propose transferring a CVN to Mayport until it reviewed the issue as part of its 2010 Quadrennial Defense Review (QDR).¹⁴

DOD's final report on the 2010 Quadrennial Defense Review (QDR), released on February 1, 2010, endorsed the Navy's desire to establish a second Atlantic Fleet CVN home port by homeporting a CVN at Mayport, FL. The report states: "To mitigate the risk of a terrorist attack, accident, or natural disaster, the U.S. Navy will homeport an East Coast carrier in Mayport, Florida."¹⁵

¹¹ Source: Navy Listing of U.S. Naval Ship Battle Forces for 1979 to the present. CV-59 underwent SLEP overhaul in 1983-1985; CV-60 did so in 1980-1983.

¹² Department of the Navy, *Record of Decision for Homeporting of Additional Surface Ships at Naval Station Mayport, Florida*, January 14, 2009, pp. 1-2.

¹³ Secretary of Defense Robert Gates testified on January 27, 2009, that both he and the new Secretary of the Navy would review the issue; and William J. Lynn III, the Deputy Secretary of Defense, made a similar commitment in testimony at his confirmation hearing on January 15, 2009. (Source: transcripts of hearings.)

¹⁴ DOD News Release No. 233-09 of April 10, 2009, entitled "Quadrennial Defense Review To Determine Aircraft Carrier Homeporting In Mayport," available at <http://www.defenselink.mil/releases/release.aspx?releaseid=12600>.

¹⁵ Department of Defense, *Quadrennial Defense Review Report*, February 2010, p. 69. The report does not make any other comments about the issue.

October 21, 2011, Navy Letters to Members of Congress from Florida and Virginia

In October 21, 2011, letters to three Members of Congress from Florida, and in letters of the same date to six Members of Congress from Virginia, Admiral Jonathan Greenert, the Chief of Naval Operations, commented on the issue of homeporting a CVN at Mayport in the context of the ongoing Department of Defense strategic and budget reviews.

In the letters to the three Members of Congress from Florida, Greenert stated the following, with the portions shown here in bold indicating the text that differs from that of the letters to the six Members of Congress from Virginia:

Thank you for your letter of **October 5**, 2011 regarding the decision to homeport a Nuclear-Powered Aircraft Carrier (CVN) in Mayport. I appreciate your thoughtful and constructive inputs on the **strategic dispersal of our CVN Fleet**.

From a strategic standpoint, the rationale supporting the decision to disperse our East Coast Carrier Fleet remains sound, as validated in the Secretary of Defense-led 2010 Quadrennial Defense Review. Within the context of the ongoing Department of Defense strategic and budget reviews, the size of the fiscal adjustments compels us to take a comprehensive strategic review, examining every program element, including the **timing and impacts of the decision** to homeport a CVN in Mayport. You can be assured **our strategic review will look to balance the merits of strategic dispersal with the challenges associated with current fiscal realities**.¹⁶

In the letters to the six Members of Congress from Virginia, Greenert stated the following, with the portions shown here in bold indicating the text that differs from that of the letters to the three Members of Congress from Florida:

Thank you for your letter of **September 23**, 2011 regarding the decision to homeport a Nuclear-Powered Aircraft Carrier (CVN) in Mayport. I appreciate your thoughtful and constructive inputs on the **current fiscal challenges in relation to the strategic dispersal of our CVN Fleet**.

From a strategic standpoint, the rationale supporting the decision to disperse our East Coast Carrier Fleet remains sound, as validated in the Secretary of Defense-led 2010 Quadrennial Defense Review. Within the context of the ongoing Department of Defense strategic and budget reviews, the size of the fiscal adjustments compels us to take a comprehensive strategic review, examining every program element, including the **funding required** to homeport a CVN in Mayport. You can be assured **I will include your concerns in the Navy's strategic calculus**.¹⁷

¹⁶ Source: October 21, 2011, letters from Admiral Jonathan Greenert to Senators Bill Nelson and Marco Rubio and Representative Ander Crenshaw, posted at InsideDefense.com (subscription required), November 4, 2011, and accessed November 7, 2011. The October 5, 2011, letter from Senators Bill Nelson and Marco Rubio and Representative Ander Crenshaw to Admiral Greenert was accessed November 7, 2011, at http://crenshaw.house.gov/?a=Files.Serve&File_id=fca59320-e1c2-4161-8f7f-479f8d7f7fe9.

¹⁷ Source: October 21, 2011, letter from Admiral Jonathan Greenert to Representative J. Randy Forbes, posted at InsideDefense.com (subscription required), November 1, 2011, and accessed November 7, 2011. The letter was also accessed November 2, 2011, at <http://forbes.house.gov/UploadedFiles/GreenertMayportResponse.pdf>. The letter states: "I have sent a similar letter to the co-signers of the 23 September letter." The September 23 letter, accessed November 2, 2011, at http://forbes.house.gov/UploadedFiles/Letter_to_Admiral_Greenert.pdf, was signed by Senators Jim Webb (continued...)

Navy's Planned Timeline Prior to FY2013 Budget

Prior to the submission of the FY2013 budget, Navy plans called for having Mayport ready to homeport a CVN in 2019. The Navy originally planned on transferring a CVN to Mayport as early as 2014, but meeting that schedule would have required funding all necessary military construction (MilCon) projects at Mayport in FY2010.¹⁸

Navy Rationale in Brief

Then-Chief of Naval Operations (CNO) Admiral Gary Roughead summarized the Navy's rationale for its desire to homeport a CVN at Mayport in early 2010 testimony to Congress on the Navy's proposed FY2011 budget:

Hampton Roads [Virginia] is the only nuclear carrier capable port on the East Coast. A catastrophic event in the Hampton Roads Area affecting port facilities, shipping channels, supporting maintenance or training infrastructure, or the surrounding community has the potential to severely limit East Coast Carrier operations, even if the ships themselves are not affected. Consistent with today's dispersal of West Coast aircraft carriers between California and Washington State, the QDR direction to make Naval Station Mayport a nuclear carrier-capable homeport addresses the Navy's requirement for a capable facility to maintain aircraft carriers in the event that a natural or manmade disaster makes the Hampton Roads area inaccessible. While there is an upfront cost to upgrade Naval Station Mayport to support our nuclear aircraft carriers, Mayport has been a carrier homeport since 1952 and is the most cost-effective means to achieve strategic dispersal on the East Coast. The national security benefits of this additional homeport far outweigh those costs.¹⁹

The January 2009 ROD document states:

The DON decision to utilize the capacity at NAVSTA Mayport to homeport a CVN is the culmination of a two and a half year process involving environmental analysis under the National Environmental Policy Act (NEPA), identification of the recurring and nonrecurring costs associated with homeporting surface ships at NAVSTA Mayport, and an assessment of strategic concerns....

The decision reached by the DON, as further explained later in this Record of Decision, is based upon the DON's environmental, operational, and strategic expertise and represents the best military judgment of the DON's leadership. The need to develop a hedge against the potentially crippling results of a catastrophic event was ultimately the determining factor in this decision-making process. The consolidation of CVN capabilities in the Hampton Roads area on the East Coast presents a unique set of risks. CVNs assigned to the West Coast are spread among three homeports. Maintenance and repair infrastructure exists at three locations as well. As a result, there are strategic options available to Pacific Fleet CVNs should a catastrophic event occur. By contrast, NAVSTA Norfolk is homeport to all five of the CVNs assigned to the Atlantic Fleet and the Hampton Roads area is the only East Coast

(...continued)

and Mark Warner and Representatives J. Randy Forbes, Rob Wittman, Scott Rigell, and Robert C. "Bobby" Scott.

¹⁸ Source: April 23, 2010, e-mail to CRS from Navy Office of Legislative Affairs.

¹⁹ Statement of Admiral Gary Roughead, Chief of Naval Operations, Before the House Armed Services Committee on February 24, 2010, p. 20. Roughead included similar a similar passage in his testimony to the other defense committees of Congress on the Navy's proposed FY2011 budget.

location where CVN maintenance and repair infrastructure exists. It is the only location in the U.S. capable of CVN construction and refueling. The Hampton Roads area also houses all Atlantic Fleet CVN trained crews and associated community support infrastructure. There are no strategic options available outside the Hampton Roads area for Atlantic Fleet CVNs should a catastrophic event occur.²⁰

Additional excerpts from the ROD are presented in **Appendix C**.

Strategic, Environmental, and Cost Analyses Informing Navy's Desire

The Navy states that its desire to transfer a CVN to Mayport is informed by three analyses:

- a “strategic laydown analysis” that projected the future size and composition of the Navy, and then apportioned that Navy between the Pacific Fleet and the Atlantic Fleet,
- a Final Environmental Impact Statement (FEIS) on alternatives for homeporting additional surface ships at Mayport, and
- an analysis of the nonrecurring and recurring costs of homeporting ships at Mayport.²¹

Each of these is discussed below.

For additional background information on the Navy's desire to transfer a CVN to Mayport, see **Appendix B**, which reprints an appendix from a May 2010 Government Accountability Office (GAO) report on the Navy's basing decision process.²²

Strategic Laydown Analysis

The strategic laydown analysis projected a future Navy fleet of 313 ships, including 11 CVNs. (Navy plans since early 2006 have called for achieving and maintaining a fleet of 313 or more ships, including 11 CVNs.²³) Based on an examination of projected future mission demands and other factors, the Navy assigned 181 of these 313 ships (including 6 CVNs) to the Pacific Fleet, and 132 ships (including 5 CVNs) to the Atlantic Fleet. This apportionment was then used to analyze the amount of homeporting capacity that would be needed in coming years for Atlantic

²⁰ Department of the Navy, *Record of Decision for Homeporting of Additional Surface Ships at Naval Station Mayport, Florida*, January 14, 2009, pp. 1-2.

²¹ Navy briefing to CRS, December 5, 2008, on Mayport homeporting. The Navy stated at the briefing that the strategic laydown analysis began with an examination of Navy force structure requirements, meaning the numbers and types of ships that the Navy would need in the future to perform its various missions. The force structure analysis, the Navy stated, was followed by a global maritime posture for the year 2020 that in turn led to the Navy's current plan for a achieving and maintaining a 313-ship fleet. The 313-ship fleet, the Navy stated, became the baseline for the strategic laydown. The Navy stated that it then examined response times, maritime strategy, and direction from the 2006 Quadrennial Defense Review (QDR) to determine the apportionment of the fleet between the Atlantic Coast, Pacific Coast, and forward-deployed home ports.

²² Government Accountability Office, *Defense Infrastructure[:] Opportunities Exist to Improve the Navy's Basing Decision Process and DOD Oversight*, GAO-10-482, May 2010. 36 pp.

²³ For a discussion, see CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

Fleet ships. Homeporting capacity was measured in terms of linear feet of pier space, and expressed in terms of cruiser equivalents (CGEs), with one CVN equaling four CGEs.

The analysis concluded that, given the 132 ships to be homeported on the Atlantic Coast and the amount of homeporting capacity available at Norfolk and Little Creek, the Navy in coming years would need 13 CGEs of surface ship homeporting capacity at an Atlantic Fleet location other than Norfolk and Little Creek. The calculation assumed no double-breasting (i.e., side-by-side mooring of two ships at a single pier) at Norfolk and Little Creek, and no construction of additional pier space at Norfolk and Little Creek.

Final Environmental Impact Statement (FEIS) Analysis

A Final Environmental Impact Statement (FEIS) on Mayport homeporting alternatives was released in November 2008. The FEIS examined 12 alternatives for homeporting additional surface ships at Mayport. Four of the 12 alternatives involved homeporting a CVN; another four involved making Mayport *capable* of homeporting a CVN, but not immediately homeporting a CVN there; and the remaining four did not involve making Mayport capable of homeporting a CVN. Ten of the 12 alternatives also involved transferring additional ships other than a CVN—various combinations of cruisers, destroyers, frigates, large-deck amphibious assault ships (LHDs), and other amphibious ships (LPDs and LSDs)—to Mayport. The FEIS also assessed a 13th alternative of homeporting no additional ships at Mayport. Homeporting a single additional ship—a CVN—was Alternative 4.

The FEIS identified Alternative 4 as the Navy’s preferred alternative. The FEIS, like the January 2009 ROD, stated that a key reason for the Navy’s desire to transfer a CVN to Mayport is to hedge against the risk of a catastrophic event that could damage the Navy’s CVN homeporting facilities in the Hampton Roads area of Virginia. The FEIS stated:

Based on a thorough review of the alternatives, the Department of the Navy has determined Alternative 4 to be its Preferred Alternative. Alternative 4 involves homeporting one CVN, dredging, infrastructure and wharf improvements, and construction of CVN nuclear propulsion plant maintenance facilities. Factors that influenced selection of Alternative 4 as the Preferred Alternative included impact analysis in the EIS, estimated costs of implementation, including military construction and other operation and sustainment costs, and strategic dispersal considerations. Homeporting a CVN at NAVSTA Mayport would enhance distribution of CVN homeport locations to reduce risks to fleet resources in the event of natural disaster, manmade calamity, or attack by foreign nations or terrorists. This includes risks to aircraft carriers, industrial support facilities, and the people that operate and maintain those crucial assets.

The aircraft carriers of the United States Navy are vital strategic assets that serve our national interests in both peace and war. The President calls upon them for their unique ability to provide both deterrence and combat support in times of crisis. Of the 11 aircraft carriers currently in service, five are assigned to the Atlantic Fleet. Utilizing the capacity at NAVSTA Mayport to homeport a CVN disperses critical Atlantic Fleet assets to reduce risks, thereby enhancing operational readiness. Operational readiness is fundamental to the Navy’s mission and obligation to the Commander in Chief.²⁴

²⁴ Naval Facilities Engineering Command, Southeast, *Final EIS for the Proposed Homeporting of Additional Surface Ships At Naval Station Mayport, FL, Volume: Final Environmental Impact Statement*, November 2008, p. ES-16.

Nonrecurring and Recurring Costs Analysis

The Navy estimated the nonrecurring and recurring costs of each of the 12 options examined in the FEIS for homeporting additional surface ships at Mayport.

The Navy in 2008 estimated the nonrecurring (i.e., initial) cost of transferring a CVN to Mayport at \$565 million.²⁵ The Navy has since updated this estimate, and as of February 2010 estimates the cost at \$589.7 million. **Table 1** shows the breakdown of this estimate. The Navy states that the figures shown in the table are rough order of magnitude (ROM) estimates that are subject to change.

Table 1. Estimated Non-Recurring Cost To Transfer a CVN to Mayport
(Millions of dollars, rounded to the nearest tenth; figures may not add due to rounding)

Item	Estimated cost
Military Construction (MilCon) Costs	
Planning and design (P&D)	30.0
Dredging	46.3
Parking	30.9
Road improvements	15.9
Wharf F improvements	42.1
Controlled Industrial Facility (CIF)	150.7
Ship Maintenance Facility (SMF)	174.8
Subtotal MilCon Costs	490.7
Other One-Time Costs	
Initial outfitting for CIF and SMF	73.0
Personnel Change of Station (PCS)	26.0
Subtotal Other One-Time Costs	99.0
TOTAL	589.7

Source: Navy information paper dated February 25, 2010, provided to CRS by Navy Office of legislative Affairs.

Notes: The Navy information paper states that the costs shown “represent Rough Order of Magnitude (ROM) [estimates] and will be subsequently amended prior to the annual budget submission” that “costs are subject to change as specific projects get programmed for future execution,” and that “The projected dollars values may adjust based on the timing of execution.”

The Navy estimated in late 2008 that, compared to the cost of homeporting a CVN at Norfolk, homeporting a CVN at Mayport would result in an additional recurring (i.e., annual) cost of \$25.5 million in constant calendar year 2010 (CY10) dollars. This estimate is a revision of an earlier

²⁵ This figure included \$456 million in Military Construction (MilCon) funding, a one-time maintenance cost of \$85 million, and \$24 million in personnel change of station (PCS) costs. The \$456 million in MilCon funding included \$30 million for planning and design work, and \$426 million for dredging, infrastructure improvements, wharf improvements, and construction of CVN nuclear propulsion plant maintenance facilities. (Source: Navy briefing entitled “Final Environmental Impact Statement (FEIS) for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL,” November 18, 2008, presented to CRS on December 5, 2008.)

estimate of \$20.4 million in recurring costs that was briefed to congressional offices following the release of the FEIS. The Navy stated that the estimate of \$25.5 million in additional recurring costs

is based on an approximate yearly recurring cost of Base Operating Support (BOS) and Sustainment, Restoration, and Modernization (SRM) at \$8.3M, Operations at \$0.8M, travel/per-diem for transitory maintenance labor which occur two of every three 32-month operating cycles but annualized at \$12.9M, permanent on-site labor at \$5M and bi-annual maintenance dredging to maintain the depth necessary for unrestricted carrier access averaged out to \$0.1M per year. It is anticipated that Basic Allowance for Housing (BAH) would show an annual savings of \$1.6M.²⁶

Navy Summary of Its Comparison of Mayport and Norfolk

Table 2 reproduces a November 2008 Navy table that summarizes the Navy’s comparison of Mayport and Norfolk in terms of certain operational characteristics and risk factors.

Table 2. Navy Table Comparing Mayport and Norfolk

	Response times to COCOMs	Transit times to Respective Training Ranges	Hurricane Risk	Man-Made Disaster Risk	Physical Force Protection
Norfolk	Slight Advantage		No Advantage		
Mayport	Slight SOUTHCOM Advantage (HADR/GFS)	Slight Advantage	No Advantage	Slight Advantage	Slight Advantage

Source: Reproduction of Navy briefing slide entitled “Norfolk vs. Mayport,” in Navy briefing entitled “Final Environmental Impact Statement (FEIS) for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL,” November 18, 2008, presented to CRS on December 5, 2008. Emboldening as in the original. At the bottom of the briefing slide, below the table, the slide stated: “Bottom Line: Most Compelling Strategic Rationale to Homeport a CVN/LHA in Mayport is as a hedge against a catastrophic event in Norfolk.”

Notes: **COCOMs** means U.S. regional combatant commanders; **SOUTHCOM** means U.S. Southern Command; **HADR/GFS** means humanitarian assistance and disaster response operations/Global Fleet Station. A GFS is a Navy formation of one or more forward-deployed Navy ships that operates in an area so as to facilitate peacetime U.S. engagement with one or more countries in that area. Amphibious and high-speed sealift ships have served as the core ships of GFSs.

Local Economic Value of Homeporting a CVN

Serving as the home port for a CVN can generate substantial economic activity in the home port area. This activity includes, among other things, the ship’s crew of more than 3,000 sailors spending its pay at local businesses, the Navy purchasing supplies for the ship from local businesses, and Navy expenditures for performing maintenance on the ship while it is in the home port.

²⁶ Source: Department of Defense information paper responding to questions from CRS, dated December 23, 2008, and provided to CRS on January 6, 2009.

Various estimates have been reported of the value of homeporting a CVN to the economy of the home port area. The FEIS estimates that transferring a CVN at Mayport would result in 2,900 more jobs, \$220 million more in direct payroll, \$208 million more in disposable income, and \$10 million more in local tax contributions for the Mayport area.²⁷ An August 2007 press report stated that “some reports put the [earlier] loss of the [aircraft carrier] George Washington at \$450 million in payroll and 8,200 military and civilian jobs in Norfolk.”²⁸ A November 2008 press report from a Norfolk newspaper stated that “The regional chamber of commerce estimates a carrier creates 11,000 jobs and \$650 million in annual economic activity.”²⁹ Another November

²⁷ The FEIS estimated the socioeconomic impacts of the various homeporting alternatives for Mayport. These impacts were measured in relation to a 2006 baseline situation in which Mayport served as a home port to 22 ships, including the carrier Kennedy. The FEIS assumed that homeporting a CVN at Mayport—Alternative 4—would result in a situation of one CVN and 11 other surface ships being homeported at Mayport in 2014. The FEIS stated that, for the Mayport area:

Under Alternative 4, the estimated construction impacts would total approximately \$671 million and result in 7,400 jobs. It is anticipated that the percent change for total dependents would be -13 percent [compared to the 2006 baseline], and total school age children would be reduced by 12 percent [compared to the 2006 baseline]. Average annual growth in direct jobs would be -2.1 percent [compared to the 2006 baseline], and total change in employment would be approximately -2,000 jobs [compared to the 2006 baseline]. Direct payroll would be reduced by \$150 million [compared to the 2006 baseline], and change in disposable income would be reduced by a total of \$141 million [compared to the 2006 baseline]. Estimated local tax contributions would be reduced by approximately \$6 million [compared to the 2006 baseline].

[Department of the Navy, *Final EIS for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL, Volume I: Final Environmental Impact Statement*, November 2008, pp. ES-29.]

Under the 13th alternative—the No Action Alternative—no additional ships would be homeported at Mayport, and Mayport in 2014 would serve as the homeport to 11 surface ships, none of them a CVN. The FEIS stated that, for the Mayport area:

Under the No Action Alternative, the percent change for total dependents would be -35 percent and total school age children would decline by 32 percent as compared to the 2006 baseline. Average annual growth in direct jobs would be -5.7 percent [compared to the 2006 baseline] and total change in employment would be a loss of approximately 4,900 jobs [compared to the 2006 baseline]. Direct payroll would be reduced by \$370 million [compared to the 2006 baseline], and change in disposable income would decline by a total of \$349 million [compared to the 2006 baseline]. Estimated local tax contributions would decrease by approximately \$16 million [compared to the 2006 baseline]. The NAVSTA Mayport population would decline, resulting in a decline in on- and off-station housing demand and occupancy rate.

[Department of the Navy, *Final EIS for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL, Volume I: Final Environmental Impact Statement*, November 2008, pp. ES-31.]

The difference between Alternative 4 and the No Action Alternative is the presence of the CVN (Alternative 4) or absence of the CVN (No Action Alternative). Compared to the No Action Alternative, under Alternative 4 in the 2014 end state, there would be 2,900 more jobs (the difference between a loss of 2,000 jobs and a loss of 4,900 jobs), \$220 million more in direct payroll (the difference between a reduction in direct payroll of \$150 million and a reduction in direct payroll of \$370 million), \$208 million more in disposable income (the difference between a decline in disposable income of \$141 million and a decline in disposable income of \$349 million.), and \$10 million more in local tax contributions (the difference between a reduction in estimated local tax contributions of \$6 million and a reduction in estimated local tax contributions of \$16 million).

²⁸ Andrew Scutro, “Senators Lobby Mullen for Mayport Flattop,” *NavyTimes.com*, August 13, 2007.

²⁹ Louis Hansen, “Use of Florida Site Vital to Carrier Safety, Navy Report Says,” *Norfolk Virginian-Pilot*, November 22, 2008. These figures were repeated in Dale Eisman and Louis Hansen, “Va. Senators Try New Tack On Plan To Move Carrier,” *Norfolk Virginian-Pilot*, December 9, 2008; Dale Eisman and Louis Hansen, “Navy Appears To Have Made Decision To Put Carrier In Florida,” *Norfolk Virginian-Pilot*, December 20, 2008; Dale Eisman and Louis Hansen, “Navy Backs Plan To Move A Carrier To Mayport, Florida,” *Norfolk Virginian-Pilot*, January 15, 2009; Dale (continued...)

2008 press report states that “Jacksonville mayor John Peyton said the new carrier would bring about 3,190 military jobs and pump about \$500 million a year into the north Florida economy in salaries and spending.”³⁰ Another November 2008 press report states that “Virginians calculate that the economic activity related to one carrier can reach \$1 billion a year.”³¹

The Navy estimated that the initial \$426 million in military construction work at Mayport would generate a total of \$671 million in initial economic activity.³²

Funding

FY2010 Funding for Dredging

The FY2010 budget provided \$46.3 million in MilCon funding for channel dredging at Mayport to support the ability of a CVN to enter Mayport on a temporary basis. The conference report (H.Rept. 111-288 of October 7, 2009) on the FY2010 National Defense Authorization Act (H.R. 2647/P.L. 111-84 of October 28, 2009) stated:

The conference agreement includes authorization for \$46.3 million for channel and turning basin dredging at Naval Station (NS) Mayport, Florida. The Navy requested this project in order to allow a nuclear aircraft carrier to enter Naval Station Mayport on a temporary basis with an embarked air wing, full stores, and under any tidal conditions. The conferees authorize funding for this project based on the Secretary of the Navy and Chief of Naval Operations’ assurances that the dredging is needed for current operational considerations to permit the use of Mayport as a transient dock and is “required irrespective of the final decision on aircraft carrier homeporting at Mayport.”

The conferees emphasize that the inclusion of an authorization for dredging at NS Mayport is not an indication of conferee support for the establishment of an additional homeport for nuclear aircraft carriers on the east coast, or intended to influence the ongoing Quadrennial Defense Review, which may include a recommendation on the establishment of a second east coast homeport for nuclear aircraft carriers. Furthermore, the conferees note that this funding is provided solely to permit use of Mayport as a transient port, and that any potential designation of Mayport as a nuclear carrier homeport will require future authorizations from the Committees on Armed Services of the Senate and the House of Representatives. (Page 870)

(...continued)

Eisman, “Next Defense Team To Weigh Carrier’s Florida Move,” *Norfolk Virginian-Pilot*, January 16, 2009.

³⁰ Ron Word, “Fla. Officials: Do Not Delay Carrier Decision,” *NavyTimes.com (Associated Press)*, November 25, 2008.

³¹ Roxana Tiron, “Nuclear Carrier Rift Expected To Spark Battle Between Dems,” *The Hill*, November 19, 2008.

³² The Navy states that:

The amount of \$671M represents the estimated economic benefit to the region resulting from the federal investment of military construction dollars (i.e., the “ripple effect”), not just the budgeted construction costs. The figure is derived from [the] IMPLAN model, a regional economic modeling program. The \$671M includes direct impacts (\$426M in MILCON), indirect impacts (\$91M in related economic sector expenditures), and induced impacts (\$154M in additional household spending derived from income gained through direct and indirect effects).

(Source: Department of Defense information paper responding to questions from congressional offices, dated December 19, 2008, and provided to CRS on January 6, 2009, question/request 42.)

FY2011 Funding for CVN Home Port

Of the \$120.05 million in funding requested by the Navy for FY2011 for MilCon planning and design activities, about \$2 million was requested for the project to establish a CVN home port at Mayport.³³ The total amount appropriated for the Navy for FY2011 for MilCon planning and design activities was \$119.81 million.³⁴

FY2012 Funding for CVN Home Port

The Navy's proposed FY2012 budget requested \$14.998 million in military construction (MilCon) funding for the Massey Avenue Corridor Improvements project, a roadway construction project that is part of the Navy's plan for establishing a CVN home port at Mayport. In addition, the Navy stated that of the \$84.36 million in funding requested by the Navy for FY2012 for MilCon planning and design activities, about \$2 million was requested for the project to establish a CVN home port at Mayport.³⁵

The conference report (H.Rept. 112-331 of December 15, 2011) on H.R. 2055/P.L. 112-74, the FY2012 Military Construction and Veterans Affairs and Related Agencies Appropriations Act (H.R. 2055/P.L. 112-74 of December 23, 2011),³⁶ approved the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 1271) and the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 1283).

The conference report (H.Rept. 112-329 of December 12, 2011) on the FY2012 National Defense Authorization Act (H.R. 1540/P.L. 112-81 of December 31, 2011) recommended approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 952) and stated:

The conferees determined that the Massey Avenue Corridor Improvements Project had merit to support requirements at the Naval Station Mayport, Florida, whether or not a nuclear powered aircraft carrier was home ported there. (Page 757)

FY2013 Budget

The Navy's proposed FY2013 budget defers the Navy's plan to homeport a CVN at Mayport. The Navy's proposed FY2013 budget and the FY2013-FY2017 Future Years Defense Plan (FYDP) contain no funding for Military Construction (MilCon) projects required to homeport a CVN at Mayport.³⁷ The Navy states: "Although the FY 2013 budget does not contain a construction

³³ Source: Navy Office of Legislative Affairs telephone conversation with CRS on April 1, 2010. See also the spoken testimony of Deputy Secretary of Defense William Lynn III at a March 4, 2010, hearing before the House Budget Committee on DOD's proposed FY2011 budget.

³⁴ Source: Department of the Navy, *Supporting Exhibits (M-1, O-1, P-1, R-1 & C-1)*, *Department of the Navy FY 2013 Budget*, February 2012, pdf pages 174 and 216 of 246.

³⁵ Source: Navy Office of Legislative Affairs telephone conversation with CRS on May 12, 2011.

³⁶ In final action, H.R. 2055 became a consolidated appropriations act incorporating nine appropriations bills, including the FY2012 Military Construction and Veterans Affairs and Related Agencies Appropriations Act itself, which was incorporated as Division H.

³⁷ Source for statement regarding funding in the FY2013-FY2017 FYDP: Navy briefing for House Armed Services Committee staff on the Navy's proposed FY2013 budget, February 14, 2012. At the invitation of the committee, CRS (continued...)

project supporting the homeporting of a CVN in Mayport, FL, the Department [of the Navy] is committed to the requirement and policy to strategically disperse CVNs on each coast. This is a deferral at this time due to fiscal constraints.”³⁸

Issues for Congress

The Navy’s desire to homeport a CVN at Mayport has become an issue of strong interest to certain Members of Congress from Florida and Virginia. Certain Members of Congress from Florida have expressed support for the Navy’s desire to homeport a CVN at Mayport, arguing (as have DOD and the Navy) that the benefits in terms of mitigating risks to the Navy’s Atlantic Fleet CVNs are worth the costs associated with moving a CVN to Mayport. Certain Members of Congress from Virginia have expressed skepticism regarding, or opposition to, the Navy’s desire to homeport a CVN at Mayport, arguing that the benefits in terms of mitigating risks to the Navy’s Atlantic Fleet CVNs are questionable or uncertain, and that the funding needed to implement the proposal could achieve greater benefits if it were spent on other Navy priorities. For examples of Member views on the issue, see **Appendix E**.

Since a key reason the Navy wants to transfer a CVN to Mayport is to hedge against the risk of a catastrophic event that could damage the Navy’s CVN homeporting facilities in the Hampton Roads area of Virginia, potential questions for Congress to consider include the following:

- What is the risk of a catastrophic event damaging Atlantic Coast CVN homeporting facilities, and how might that risk be altered by homeporting a CVN at Mayport?
- If a catastrophic event were to damage Atlantic Coast CVN homeporting facilities, what would be the operational impact on the Navy, and how quickly could the Navy repair the damage and return to normal operations?
- Are the costs associated with homeporting a CVN at Mayport worth the benefits in terms of hedging against the risk of a catastrophic event damaging Atlantic Coast CVN homeporting facilities?

In assessing these and other questions relating to the Navy’s desire to transfer a CVN to Mayport, Congress may consider several specific issues, including the following:

- the Navy’s basing decision process;
- the Navy’s strategic laydown analysis;
- the Navy’s estimated recurring and nonrecurring costs for homeporting a CVN at Mayport;
- transit times from Norfolk and Mayport to key destinations;
- the vulnerability of Norfolk and Mayport to natural and man-made catastrophes;

(...continued)

staff attended the briefing.

³⁸ Department of the Navy, *Highlights of the Department of the Navy FY 2013 Budget*, February 2012, p. 6-3.

- other factors that might differentiate Norfolk and Mayport;
- the Final Environmental Impact Statement (FEIS) on Mayport homeporting options;
- potential options for Mayport homeporting other than those studied in the FEIS; and
- potential alternative uses of the funding that would be required for homeporting a CVN at Mayport.

Each of these specific issues is discussed below.

Navy's Basing Decision Process

One issue that Congress may consider is the Navy's basing decision process. A May 2010 GAO report on the Navy's basing decision process done in response to direction in the House Armed Services Committee's report (H.Rept. 111-166 of June 18, 2009, pages 537-538) on the FY2010 defense authorization bill (H.R. 2647) states:

The Army, Marine Corps, and Air Force basing decision processes fully incorporate the key elements, associated factors, and management control standards that GAO identified as necessary in a comprehensive process; however, the Navy needs additional guidance for its process to be complete. GAO found that while the Army, Marine Corps, and Air Force each have issued comprehensive guidance for their basing processes that describes the organizational roles and responsibilities within the service, establishes links among all of the service's strategic and environmental guidance documents, and identifies the service's basing criteria, some of the Navy's guidance documents lacked detailed information about specific actions taken during the process and defined responsibility for completing certain types of analyses. For example, the Navy's Strategic Dispersal Flow Chart—one of the five guidance documents used to implement the Navy's process—shows that some types of analyses are conducted to review a range of considerations, such as access to training areas, sailor and family quality of life, and ship size, for a particular basing decision. But the document does not describe in any detail how and by whom these analyses will be conducted. Additionally, Navy guidance does not provide a clear explanation of how its five guidance documents are linked together in implementing the Navy's overall basing process. Without comprehensive and clear guidance on all aspects of the Navy's overall basing decision process, the Navy may lack the completeness and management control to ensure that Navy basing decisions can facilitate external stakeholders' examination and scrutiny or ensure effective implementation of the Navy's basing process.

The Secretary of Defense has not set a policy or assigned an office a clear role for providing management control of the services' basing decision processes within the United States, and as a consequence may lack reasonable assurance that certain departmentwide initiatives will be fully supported in the services' basing decisions. The Office of the Secretary of Defense (OSD) officials said that OSD is promoting joint sharing of DOD facilities and seeking to ensure that domestic basing decisions support global operations. However, OSD has not fully promoted service consideration of the joint sharing, global operations, and potentially other initiatives because the Secretary of Defense has neither provided a comprehensive policy for, nor clearly assigned an office within OSD to oversee domestic service basing processes. Without OSD guidance and an office to provide effective oversight of military service basing decision processes, the Secretary of Defense lacks reasonable assurance that departmentwide

initiatives are adequately considered by the services in their domestic basing decision making.³⁹

Strategic Laydown Analysis

A second issue that Congress may consider is the Navy's strategic laydown analysis. As mentioned earlier, this analysis projected a future fleet of 313 ships (including 11 CVNs), of which 181 ships (including 6 CVNs) would be assigned to the Pacific Fleet and 132 ships (including 5 CVNs) would be assigned to the Atlantic Fleet.

On September 1, 2011, it was reported that the Navy, in response to anticipated reductions in planned levels of defense spending, is discussing options for maintaining a fleet with considerably fewer than 300 ships, such as a 250-ship fleet that includes 10 aircraft carriers or a 240-ship fleet that includes 8 aircraft carriers; a fleet with 9 carriers is another reported option.⁴⁰ Supporters of keeping all Atlantic Fleet CVNs homeported at Norfolk could argue that if the Navy in coming years includes fewer than 313 ships or fewer than 11 CVNs, there will be less need to shift a CVN from Norfolk to Mayport for reasons relating to homeporting capacity. Supporters of homeporting a CVN at Mayport could argue that if the Navy in coming years includes fewer than 313 ships or fewer than 11 CVNs, each ship or each CVN would represent a larger percentage of the Navy's overall capability, making the need to hedge against a catastrophic event in the Hampton Roads area more important.

Additional factors that Congress may consider in connection with the strategic laydown analysis include the Navy's projected apportionment of the fleet between the Pacific and Atlantic Coasts (which reflects, among other things, a Navy judgment about likely potential missions for the Navy), the potential for "breasting" (i.e., side-by-side mooring of two or more ships at a single pier), and the cost of increasing homeporting capacity at Norfolk through construction of additional pier space and other facilities.

Nonrecurring and Recurring Costs

A third issue that Congress may consider is whether the Navy has accurately estimated the nonrecurring and recurring costs of homeporting a CVN at Mayport. Other things held equal, if the Navy has underestimated or overestimated these costs, it might weaken or strengthen, respectively, the argument for homeporting a CVN at Mayport.

March 2011 GAO Report

A March 2011 GAO report on the Navy's estimate of nonrecurring and recurring costs of homeporting a CVN at Mayport stated:

GAO's independent cost estimate suggests that the total one-time cost of homeporting a nuclear-powered aircraft carrier at Naval Station Mayport is expected to be between \$258.7

³⁹ Government Accountability Office, *Defense Infrastructure[:] Opportunities Exist to Improve the Navy's Basing Decision Process and DOD Oversight*, GAO-10-482, May 2010, summary page.

⁴⁰ Christopher J. Castelli, "Navy Of Tomorrow Could Have Fewer Cruisers, Aircraft Carriers," *Inside the Pentagon*, September 1, 2011.

million and \$356.0 million, in base year 2010 dollars. The Navy's estimate of the one-time cost is \$537.6 million—also in base year 2010 dollars—which is outside the upper range of GAO's estimate. Unlike GAO's estimate, the Navy did not conduct a risk and uncertainty analysis on its one-time costs; as a result, its estimate does not include a range. The largest difference between GAO's estimate of one-time costs and the Navy's estimate is the cost of constructing new facilities at Mayport. Based on the historical costs of constructing similar facilities, GAO estimates at the 65 percent confidence level that the cost for constructing the controlled industrial facility will be \$70.5 million, and the cost for constructing the ship maintenance support facilities will be \$45.6 million. The Navy estimates the construction costs to be much higher at \$139.1 million and \$157.2 million, respectively. Navy officials told GAO the difference is due to the increased cost involved in protecting the buildings from a potential storm surge associated with a Category 4 hurricane. GAO included a hurricane factor in its estimate to account for this increase, but GAO and the Navy used different estimating methods in developing the estimates for the construction costs. GAO used adjusted actual costs from similar construction projects, while the Navy used a detailed engineering estimate. For recurring costs, GAO's independent cost estimate suggests that the total is expected to be between \$9.0 million and \$17.6 million per year. The Navy's estimate of \$15.3 million per year is within GAO's estimated range.

The Navy's estimate did not fully meet any of the four characteristics—comprehensive, accurate, well documented, and credible—for producing a high-quality cost estimate. Specifically, although the estimate included almost all of the life-cycle costs related to homeporting a nuclear aircraft carrier at Mayport, it partially met the criteria for being comprehensive because it does not fully describe the cost-influencing ground rules and assumptions. The estimate was only minimally accurate and well documented in that although many elements of the estimate are based on actual experiences from other comparable programs, it is difficult to say if the cost estimates are the most likely costs since the Navy did not conduct a risk and uncertainty analysis. Further, the estimate contains very little step-by-step description of how the estimate was developed so that a cost analyst unfamiliar with the program could independently replicate it. The Navy had to recreate several portions of the estimate in order to provide GAO with supporting documentation. Further, the Navy's estimate does not meet the GAO best practice for a credible estimate because it does not include a sensitivity analysis and was not compared by the Navy to an independent cost estimate conducted by a group outside the Navy. Without fully meeting the characteristics of a high-quality estimate, the Navy's ability to present a convincing argument of the estimate's affordability and credibly answer decision makers' and oversight groups' questions about the estimate is hampered.⁴¹

Regarding nonrecurring costs, the report stated on pages 10-11:

Table 2 [of this GAO report] shows a comparison between our estimated range and the Navy's estimate for one-time costs. Specifically, the table shows our estimated range at an 80 percent confidence interval and whether the Navy's estimate falls into that range. The low value of the estimate range (\$258.7 million) represents a 10 percent chance that the cost will be that amount or less, and the high value of the estimated range (\$356.0 million) represents a 90 percent chance that the cost will be that amount or less. The last column in the table identifies whether the Navy's estimate is within our estimated range.

⁴¹ Government Accountability Office, *Defense Infrastructure[:] Navy Can Improve the Quality of Its Cost Estimate to Homeport an Aircraft Carrier at Naval Station Mayport*, GAO-11-309, March 2011, summary page.

Table 2: Comparison of GAO Estimated Range and Navy Point Estimates of One-Time Costs (in Base Year 2010 dollars)

(Dollars in millions)				
Cost element	GAO's estimated low cost	GAO's estimated high cost	Navy's point estimate	Within GAO's estimated range
Planning and design	15.0	22.9	30.0	No
Dredging	31.3	33.1	46.3	No
Construction				
Parking garage	21.9	53.3	27.8	Yes
Road improvements	9.5	24.3	15.3	Yes
Wharf F improvements	28.3	75.3	38.9	Yes
Controlled industrial facility	35.2	94.9	139.1	No
Ship maintenance support facilities	23.0	59.3	157.2	No
Initial equipment outfitting	24.5	64.4	73.0	No
Permanent change of station for crew	4.7	6.0	10.0	No

Source: GAO analysis.

Notes: The low cost estimate is at the 10 percent confidence level and the high cost estimate is at the 90 percent confidence level. It is not statistically appropriate to add each of the individual confidence intervals to come up with an overall confidence interval. In addition to the road improvements on Naval Station Mayport, information provided by a Department of Transportation official indicates that the Jacksonville Transportation Authority, based on its study of traffic improvements to the intersection approaching the main gate outside of the naval station, has identified up to \$8 million in improvements that are unfunded at this time. The official indicated that these improvements are potentially eligible for federal-aid funds.

The report also stated on page 12:

Table 3 [of this GAO report] shows our 65 percent confidence level estimate in comparison to the Navy's point estimate. To facilitate comparisons against the Navy's estimate, the one-time costs are expressed in base year 2010 dollars, which represent amounts based on 2010 prices, with the impact of inflation removed. While useful for comparisons against the Navy's estimate, base year 2010 dollars should not be used as the basis for budgetary decisions. In order to support a budgetary amount, base year 2010 dollars would need to be converted into then-year dollars.

Table 3: Comparison of GAO's 65 Percent Confidence Level Estimates and Navy's Point Estimates of One Time Costs (in Base Year 2010 Dollars)

(Dollars in millions)			
Cost element	GAO's 65 percent confidence level estimate	Navy's point estimate	Difference between Navy's point estimate and GAO's 65 percent confidence level estimate
Planning and design	19.7	30.0	10.3
Dredging	32.3	46.3	14.0
Construction			
Parking garage	38.5	27.8	-10.7
Road improvements	18.4	15.3	-3.1
Wharf F improvements	58.2	38.9	-19.3
Controlled industrial facility	70.5	139.1	68.3
Ship maintenance support facilities	45.6	157.2	111.6
Initial equipment outfitting	48.4	73.0	24.6
Permanent change of station for crew	5.5	10.0	4.5

Source: GAO analysis.

Notes: The low cost estimate is at the 10 percent confidence level and the high cost estimate is at the 90 percent confidence level. It is not statistically appropriate to add each of the individual confidence intervals to come up with an overall confidence interval. In addition to the road improvements on Naval Station Mayport, information provided by a Department of Transportation official indicates that the Jacksonville Transportation Authority, based on its study of traffic improvements to the intersection approaching the main gate outside of the naval station, has identified up to \$8 million in improvements that are unfunded at this time. The official indicated that these improvements are potentially eligible for federal-aid funds.

Regarding recurring costs, the report stated on page 14:

Table 4 [of this GAO report] shows a comparison between our estimated range and the Navy's estimate for recurring costs. Specifically, the table shows our estimate range at an 80 percent confidence interval and whether the Navy's estimate falls into that range. The low value of the estimated range (\$9.0 million) represents a 10 percent chance that the cost will

be that amount or less, and the high value of the estimated range (\$17.6 million) represents a 90 percent chance that the cost will be that amount or less. The last column in the table identifies whether the Navy's estimate is within our estimated range.

Table 4: Comparison of GAO Estimated Range and Navy Point Estimates of Recurring Costs (in Base Year 2010 Dollars)

(Dollars in millions)

Cost element	GAO's estimated low cost	GAO's estimated high cost	Navy's point estimate	Within GAO's estimated range
Permanently assigned labor for nuclear facilities	0.7	1.9	1.2	Yes
Base operating support	0.7	1.4	1.0	Yes
Facilities sustainment	0.7	1.2	0.8	Yes
Facilities restoration and modernization	2.2	3.3	6.8	No
Operations	0.5	1.4	0.8	Yes
Travel/per diem for public shipyard workers	4.8	12.2	7.0	Yes
Biennial maintenance dredging	0.1	0.2	0.1	Yes
Basic allowance for housing differential	-5.5	-4.4	-3.2	No
Utilities	0.6	1.8	0.8	Yes
Permanent change of station	1.0	1.3	0	No
Private sector travel	0.1	1.2	0	No

Source: GAO analysis.

Notes: The low cost estimate is at the 10 percent confidence level and the high cost estimate is at the 90 percent confidence level. The range and estimate for the basic allowance for housing is negative because the housing allowance is less in the Jacksonville, Florida metropolitan area than it is in Norfolk, Virginia. This results in a net cost savings for the Navy for this cost element. It is not statistically appropriate to add each of the individual confidence intervals to come up with an overall confidence interval. The overall 65 percent confidence level that is reported in app. II is calculated separately from the individual elements.

As we did with one time costs, we also compared our 65 percent confidence level estimates with the Navy's point estimates for a direct element-by-element comparison between our estimate and the Navy's, as shown in table 5.

Table 5: Comparison of GAO's 65 Percent Confidence Level Estimates and Navy's Point Estimates of Recurring Costs (in Base Year 2010 Dollars)

(Dollars in millions)

Cost element	GAO's 65 percent confidence level estimate	Navy's point estimate	Difference between Navy's point estimate and GAO's 65 percent confidence level estimate
Permanently assigned labor for nuclear facilities	1.4	1.2	-0.2
Base operating support	1.1	1.0	-0.1
Facilities sustainment	1.0	0.8	-0.2
Facilities restoration and modernization	2.9	6.8	3.9
Operations	1.0	0.8	-0.2
Travel/per diem for public shipyard workers	9.1	7.0	-2.1
Biennial maintenance dredging	0.1	0.1	0
Basic allowance for housing differential	-4.8	-3.2	1.6
Utilities	1.3	0.8	-0.5
Permanent change of station	1.2	0	-1.2
Private sector travel	0.6	0	-0.6

Source: GAO analysis.

Note: The estimate for the basic allowance for housing is negative because the housing allowance is less in the Jacksonville, Florida metropolitan area than it is in Norfolk, Virginia. This results in a net cost savings for the Navy for this cost element. It is not statistically appropriate to add each of the individual confidence intervals to come up with an overall confidence interval. The overall 65 percent confidence level that is reported in app. II is calculated separately from the individual elements.

The report made the following conclusions and recommendations:

Conclusions

The Navy's ability to produce a comprehensive, accurate, well documented, and credible cost estimate for homeporting a nuclear-powered aircraft carrier at Naval Station Mayport will continue to be hampered until it makes certain fundamental changes to the process it uses to develop, document, and update its overall estimate of Mayport homeporting costs.

Specifically, without full documentation of the data sources, assumptions, and calculation methods it uses, the Navy cannot assure that its estimate can be validated or defended or any differences between estimated and actual costs can be explained—an important step in improving and updating the estimate. Additionally, without detailed documentation that describes how the estimate was derived, the Navy can neither present a convincing argument of the estimate’s affordability, nor credibly answer decision makers’ and oversight groups’ questions about specific details in the estimate. Further, without conducting sensitivity and risk and uncertainty analyses on its cost estimate, the Navy is unable to identify and focus on major cost drivers, analyze the potential for cost growth, and quantify the risk and uncertainty associated with the cost estimate. Moreover, without a comprehensive, accurate, well documented, and credible cost estimate, Congress cannot have reasonable confidence that it has a complete understanding and an accurate and realistic determination of the projected costs to evaluate and make decisions on the Navy’s planned homeporting of a nuclear-powered aircraft carrier at Mayport.

Recommendations for Executive Action

To improve the Navy’s life-cycle cost estimate for the planned homeporting of a nuclear-powered aircraft carrier at Naval Station Mayport, Florida, we recommend that the Secretary of Defense direct the Secretary of the Navy to take the following three actions to incorporate to a greater extent the best practices identified by GAO for developing a high-quality cost estimate in future revisions of its Mayport nuclear carrier homeporting cost estimate as part of the annual budgetary process or in response to future congressional requests:

1. To improve the comprehensiveness of its cost estimate, the Navy should
 - include all potential recurring costs, and
 - clearly describe the ground rules and assumptions underlying the estimation of each cost element;
2. To improve the quality and transparency of the Navy’s estimate, the Navy should thoroughly document the life-cycle costs associated with homeporting a nuclear-powered aircraft carrier at Naval Station Mayport. Specifically, documentation should
 - identify the source data used, their reliability, and how the data were normalized,
 - describe the steps used in developing the overall estimate so that it can be clearly understood and easily replicated, and
 - describe in sufficient detail the estimating methodology and calculations performed to derive each element’s cost; and
3. To improve the accuracy and credibility of its cost estimate, the Navy should assign a single office with the responsibility for assembling the overall estimate into a comprehensive and well documented package and for performing a sensitivity and risk and uncertainty analyses on the overall estimate to identify the
 - major cost drivers,
 - extent to which estimates could vary due to changes in key cost assumptions, and

- level of confidence in the estimate.⁴²

The GAO report stated that “in written comments on a draft of this report, DOD partially concurred with two and nonconcurred with one of our three recommended actions.... DOD’s written comments are reprinted in appendix IV [of this GAO report].”⁴³

Transit Times

A fourth issue that Congress may consider is whether the Navy has accurately assessed the relative merits of Norfolk and Mayport in terms of transit times to key overseas operating areas and training ranges, as shown in the first two columns of **Table 2**. Transit times are a function of transit distance and transit speed.

With regard to transit times to key overseas operating areas, one key destination is the Strait of Gibraltar, which is used to support operations in the Mediterranean and (via the Suez canal) the Indian Ocean and Persian Gulf. Other key destinations include the Cape of Good Hope (a longer route to the Indian Ocean and Persian Gulf, but one that avoids the need to transit the Suez canal), and Puerto Rico (which might be considered a representative destination for supporting operations in the Caribbean). **Table 3** shows transit times from Norfolk and Mayport to these three destinations at 14 knots (a typical transit speed for routine forward deployments) and 20 knots (an elevated transit speed that might be more likely for responding to a contingency).

Table 3. Transit Times To Key Destinations

In days, as a function of transit speed

Destination	From	Transit speed	
		14 knots	20 knots
Strait of Gibraltar	Mayport	11.1	7.6
	Norfolk	9.9	7.0
Cape of Good Hope	Mayport	34.8	24.4
	Norfolk	34.8	24.3
Puerto Rico	Mayport	6.2	4.3
	Norfolk	6.9	4.8

Source: Navy briefing slide entitled “Average Transit Times East/West,” in Navy briefing entitled “Final Environmental Impact Statement (FEIS) for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL,” November 18, 2008, presented to CRS on December 5, 2008; and (for Puerto Rico) Department of Defense information paper responding to questions from CRS, dated December 23, 2008 and provided to CRS on January 6, 2009.

⁴² Government Accountability Office, *Defense Infrastructure[:] Navy Can Improve the Quality of Its Cost Estimate to Homeport an Aircraft Carrier at Naval Station Mayport*, GAO-11-309, March 2011, pp. 22-23.

⁴³ Government Accountability Office, *Defense Infrastructure[:] Navy Can Improve the Quality of Its Cost Estimate to Homeport an Aircraft Carrier at Naval Station Mayport*, GAO-11-309, March 2011, p. 23.

Port Vulnerability

A fifth issue that Congress may consider is whether the Navy has accurately assessed vulnerability-related factors at Norfolk and Mayport, including the risk of a natural or man-made catastrophic event damaging CVN homeporting facilities, and the Navy's ability to defend against such an event at either site. The Navy's summary of its assessments of these factors is shown in the third, fourth, and fifth columns of the Navy slide reproduced in **Table 2**.

In assessing the question of port vulnerability, one factor that might be considered is the current degree of concentration or dispersion of Navy ships other than Atlantic Fleet CVNs. For example, supporters of transferring a CVN to Mayport might observe that the Navy's Pacific Fleet CVN homeporting facilities are currently located in three widely separated areas (San Diego, the Puget Sound area of Washington State, and Yokosuka, Japan), while supporters of keeping all Atlantic Fleet CVNs homeported at Norfolk might observe that the Navy's Pacific Fleet and Atlantic Fleet ballistic missile submarines (SSBNs)—which, like CVNs, are low-quantity, high-value assets—are homeported at a single site on each coast (Bangor, WA, and Kings Bay, GA, respectively).

Natural Disaster

As shown in **Table 2**, hurricanes were the principal type of natural disaster that the Navy analyzed in comparing the relative risk of a natural disaster at Hampton Roads and Mayport. The Navy assesses that, historically, the hurricane risk to Norfolk is similar to the risk to Jacksonville, which is close to Mayport. Information provided by the Navy regarding the risk of hurricanes at Norfolk and Mayport is presented in **Appendix D** of this report.

Man-Made Disaster

Potential man-made disasters include but are not limited to shipping accidents, conventional or nuclear military attacks by foreign countries, and terrorist attacks.

During the Cold War, the Navy was concerned about the potential for a conventional military attack on U.S. home ports by Soviet military forces. One possibility was a covert mining of U.S. Navy home ports by Soviet submarines and Warsaw Pact merchant ships prior to the start of a NATO-Warsaw Pact conflict. Another possibility was a cruise missile strike by Soviet submarines against Navy port facilities or ships in port. Concern over the potential for a conventional military attack on U.S. home ports by Soviet military forces was the central reason for the Navy's strategic homeporting program of the 1980s, which dispersed some of the Navy's ships away from the Navy's major home ports.⁴⁴

The end of the Cold War reduced the apparent risk of a conventional military attack on U.S. Navy home ports by a foreign country, and led to a reconsideration of the strategic homeporting program.⁴⁵ China is modernizing its naval and other military forces,⁴⁶ but any potential ability

⁴⁴ See CRS Issue Brief IB85193, *The Navy's Strategic Homeporting Program: Issues for Congress*, by Ronald O'Rourke. This issue brief is out of print and is available directly from the author.

⁴⁵ See CRS Issue Brief IB90077, *Strategic Homeporting Reconsidered*, by Ronald O'Rourke. This issue brief is out of print and is available directly from the author.

⁴⁶ See CRS Report RL33153, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*, by Ronald O'Rourke.

China might have in coming years for conducting a conventional attack on U.S. home ports might be more of an issue for Pacific Fleet home ports than for Atlantic Fleet home ports.

The terrorist attack of October 12, 2000, on the destroyer *Cole* (DDG-67) in the port of Aden, Yemen,⁴⁷ and the terrorist attacks of September 11, 2001, have led to increased focus on the potential for terrorist attacks on U.S. port areas.

The Navy states that DOD and other U.S. government entities conducted several vulnerability assessments for Norfolk and Mayport between 2006 and 2008.⁴⁸ The contents of these assessments are generally classified.

The Navy states that it used statistics on shipping volumes at the ports of Norfolk and Jacksonville (near Mayport) as one measure of the relative risk of a man-made disaster at Norfolk and Mayport, the idea being that certain elements of the risk of man-made disaster are somewhat proportional to the volume of shipping. The Navy states that in 2006, 2.05 million cargo containers and 16.6 million tons of cargo passed through the port of Norfolk, while 768,200 cargo containers and 8.31 million tons of cargo passed through the port of Jacksonville.⁴⁹ The Navy further states that the center of the shipping channel in the port of Norfolk is about 500 yards from the carrier piers, and that the channel is separated from the piers by a line of buoys but no fixed obstruction, while the center of the shipping channel in the port of Jacksonville is also about 500 yards from the carrier pier, but is separated from the carrier pier by a 200-yard-wide spit of land.⁵⁰

⁴⁷ For a discussion of this attack, see CRS Report RS20721, *Terrorist Attack on USS Cole: Background and Issues for Congress*, by Raphael F. Perl and Ronald O'Rourke.

⁴⁸ In response to a question from CRS regarding vulnerability assessments for Norfolk and Mayport, the Navy stated the following (which has been edited for ease of reading):

The Joint Staff sponsored a Joint Staff Integrated Vulnerability Assessment (JSIVA) on Naval Station Norfolk that was conducted from August 6 to August 11, 2006. The team conducting the assessment was composed of seven specialists from the Defense Threat Reduction Agency (DTRA). The Naval Criminal Investigative Service (NCIS) conducted a Chief of Naval Operations Integrated Vulnerability Assessment (CNOIVA) for Naval Station Mayport from January 21 to January 26, 2007. Threat assessments conducted by NCIS through the Multiple Threat Alert Center (MTAC) prior to specific events, such as air shows, also serve as threat updates for other Department of the Navy commands located in the geographic area. NCIS also conducts Port Integrated Vulnerability Assessments (PIVA) for ports and facilities that are not USN bases. Additional vulnerability and threat assessments that were completed include the following: a Southeast Virginia Threat Assessment that was conducted from August 27 to October 7, 2008; a Mayport Threat Assessment dated May 30, 2008; a Jacksonville Threat Assessment dated October 1, 2008; an FBI assessment entitled "Domestic Maritime Domain Terrorist Threat Assessment" dated March 28, 2008; an update to that assessment entitled "Domestic Maritime Domain Terrorist Threat Assessment (Update)" dated April 17, 2008; a Department of Homeland Security assessment entitled "Homeland Security Threat Assessment: Evaluating Threats 2008-2013" dated July 18, 2008; a U.S. Coast Guard assessment entitled "The Terrorist Threat to the U.S. Maritime Domain" dated March 25, 2004; and a Director of National Intelligence assessment entitled "The Terrorist Threat to the US Homeland" dated July 2007. (Source: Department of Defense information paper responding to questions from CRS, dated December 23, 2008 and provided to CRS on January 6, 2009.)

⁴⁹ The cargo containers were measured in twenty-foot equivalent units (TEUs), a standard metric for counting cargo containers.

⁵⁰ Source: Slide entitled "Shipping—Man Made Disaster Risk," from Navy briefing entitled "Final Environmental Impact Statement (FEIS) for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL," November 18, 2008, presented to CRS on December 5, 2008.

Other Factors That Might Differentiate Norfolk and Mayport

A sixth issue that Congress may consider is whether the Navy has overlooked or not given adequate weight to other factors in evaluating the merits of Mayport and Norfolk as Navy home ports. Possibilities might include things such as

- the ability of private ship repair firms in Northeast Florida to support the maintenance requirements of a CVN,
- the readiness and cost impacts of the aircraft carrier homeporting and maintenance at Mayport on the Navy's traveling workforce,
- the interaction of the base facilities at Mayport or Norfolk with other regional military facilities (such as naval air stations), or
- the possible effect of CVN homeporting on Navy recruiting in the area surrounding the home port.

December 2010 Navy Report on Private Ship-Repair Firms

Regarding the first factor above, a December 2010 Navy report stated that

Mayport has a large and diverse vendor base that provides services such as maintenance, upkeep, and servicing to fleet units and installations....

[Five] northeast Florida-based ship-repair activities have been evaluated by the Department of the Navy (DON), as having the capabilities required to perform non-nuclear maintenance and modernization on U.S. Navy ships....

Mayport private-sector shipyards have a wide range of capabilities to perform maintenance and modernization on the majority of non-nuclear hull, mechanical, and electrical systems of various ship classes....

Private-sector ship-repair activities in Mayport will perform the same type of work on a nuclear-powered aircraft carrier that they currently perform on non-nuclear surface ships. Therefore, no additional specialized capabilities are required from the private-sector in northeast Florida to support nuclear-powered aircraft carrier maintenance. Because the Navy does not require additional capabilities from the private-sector in Mayport, no additional costs to the Navy are expected for the private-sector to develop additional capabilities to support a nuclear-powered aircraft carrier....

The Mayport private-sector has experience supporting large aircraft carrier availabilities of the magnitude of a PIA [i.e., an aircraft carrier Planned Incremental (Maintenance) Availability].⁵¹

March 29, 2011, GAO Report on Private Ship-Repair Firms

A March 29, 2011, GAO report that assessed the Navy's December 2010 report stated that

⁵¹ U.S. Navy, *Report to Congress on Northeast Florida Private Ship Maintenance Industrial Base*, December 2010, pp. 4, 6, and 9.

Private ship repair firms in northeast Florida will likely be able to support the maintenance requirements of a nuclear aircraft carrier if one is homeported at Naval Station Mayport in 2019 as the Navy plans....

The northeast Florida area is home to three master ship repair firms certified by the Navy to have the capabilities and capacities to support the maintenance requirements of U.S. Navy surface ships, including aircraft carriers. Each of these firms has significant production and administrative facilities either on or near Naval Station Mayport, and officials from these firms told us they will maintain their presence in northeast Florida....

The tasks required of the private ship repair firms to support a nuclear carrier are the same as those performed on conventional carriers in the past and the other types of ships currently homeported at Mayport.

Private ship repair firms in northeast Florida have previously demonstrated the ability to support carrier maintenance. In fact, the largest aircraft carrier availability ever performed outside of a public shipyard was completed on the USS John F. Kennedy in Mayport in 2003.⁵²

March 3, 2011, GAO Report on Navy's Traveling Workforce

Regarding the second of the factor above, a March 3, 2011, GAO report stated that

In 2010, the Navy revised its original (2008) estimate of annualized workforce-related costs from about \$18 million to \$8.2 million. The Navy revised its estimate as a result of discussing its estimate with us and identifying more correct and complete assumptions than had been used to develop the original estimate. For example, the original estimate used the more expensive travel rates for San Diego instead of [the less expensive travel rates for] Mayport. To assess the validity of the revised estimate, we also developed an independent cost estimate. Our independent, risk-adjusted, annualized estimate for the workforce-related recurring costs is about \$10.6 million at the 65 percent confidence interval, which means that there is a 65 percent probability the actual cost will be \$10.6 million or less. We also estimated that these risk-adjusted costs could range from \$5.5 million to \$14.1 million. The difference is attributable in part to our estimate being based on a risk analysis while the Navy's was not. Our assessment of the Navy's cost-estimating procedures found that the Navy's procedures met best practices to various degrees. For example, the Navy's procedures met the requirements to comprehensively include both types of workforce-related costs (traveling and permanently stationed employees' costs) involved in the move. However, the Navy's procedures minimally met the credible criteria because they did not, among other things, include risk and sensitivity analyses or an independent cost estimate.

The Navy has not begun to identify or document potential effects on readiness that might occur as a result of the proposed move nor has it identified workforce-related mitigation strategies because the move is years away. However, Navy officials indicated that the U.S. Navy Depot Maintenance Strategic Plan outlines strategies that will be used to address potential risks to readiness. Also, they indicated that they will begin to implement these strategies 4 to 5 years before moving the aircraft carrier to Mayport. We found that the Navy has processes to manage the workforce that include depot workers traveling to other locations to perform aircraft carrier maintenance. While the move to Mayport will result in increased travel for the workforce, Navy officials told us that they currently meet workforce

⁵² Government Accountability Office, *Defense Infrastructure: Ability of Ship Maintenance Industrial Base to Support a Nuclear Aircraft Carrier at Naval Station Mayport*, GAO-11-388R, March 29, 2011, pp. 4-5.

travel requirements while staffed almost entirely by workers who voluntarily elect to travel. Navy officials do not anticipate any challenges in identifying a sufficient number of workers with the appropriate skills to perform maintenance work at Mayport. Further, Navy officials have indicated that the performance of the traveling workforce conducting remote aircraft carrier depot maintenance slightly exceeds that of workers requiring no travel.⁵³

Final Environmental Impact Statement (FEIS)⁵⁴

A seventh issue that Congress may consider is the adequacy of the FEIS that the Navy prepared to assess the potential environmental impacts of locating a nuclear carrier at Mayport. The National Environmental Policy Act (NEPA) requires all federal agencies to prepare environmental impact statements for major actions that would significantly affect the environment. The scope of these statements are broader than the environment per se, as agencies are required to examine not only the potential impacts on the natural environment but also the socioeconomic impacts of a proposed action. Some observers have questioned whether the Navy thoroughly assessed these sets of impacts when it selected Mayport for the location of a CVN.⁵⁵

Mayport Homeporting Options Other Than Those Studied

An eighth issue that Congress may consider are potential options for homeporting additional ships at Mayport that differ from the 12 alternatives studied in the FEIS. One such possibility, which the FEIS mentioned but did not examine in detail, would be to homeport some number of Littoral Combat Ships (LCSs) at Mayport. LCSs, which are just beginning to enter service with the Navy, are somewhat smaller than the Navy's frigates, and are to have much smaller crews.⁵⁶ As mentioned earlier, the Navy reported to Congress in February 2010 that the service envisages Mayport as the primary Atlantic Fleet homeporting location for the Navy's new LCSs. (The report identifies Little Creek, VA, as the Navy's envisaged secondary Atlantic Fleet LCS homeporting location, and Norfolk as the Navy's envisaged tertiary Atlantic Fleet LCS homeporting location.)⁵⁷ Another possibility would be to homeport two CVNs rather than one CVN at Mayport. As mentioned earlier, Mayport served as a home port for two CVs for several years during the 1980s.

⁵³ Government Accountability Office, *Depot Maintenance: Navy Has Revised Its Estimated Workforce Cost for Basing an Aircraft Carrier at Mayport, Florida*, GAO-11-257R, March 3, 2011, pp. 2-3.

⁵⁴ This section was drafted by David M. Bearden, Specialist in Environmental Policy, Resources, Science, and Industry Division.

⁵⁵ See, for example, Dale Eisman and Louis, "Va. Senators Try New Tack On Plan To Move Carrier," *Norfolk Virginian-Pilot*, December 9, 2008.

⁵⁶ For more on the LCS program, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

⁵⁷ Department of the Navy, *Report on Strategic Plan for Homeporting the Littoral Combat Ship*, February 2010, p. 5. See also Zachary M. Peterson, "Navy Report Outlines Notional Littoral Combat Ship Homeporting Strategy," *Inside the Navy*, March 8, 2010; Christopher P. Cavas, "Mayport To Get First East Coast Littoral Ships," *NavyTimes.com*, March 10, 2010; and Timothy J. Gibbons, "Mayport Lands Combat Ships," *Florida Times-Union (Jacksonville)*, March 11, 2010: 1.

Alternative Uses of Funding

A ninth issue that Congress may consider are potential alternative uses by the Navy or some other part of DOD of the funding that would be needed for homeporting a CVN at Mayport, and how the benefits of those potential alternative uses would compare to the benefits of homeporting a CVN at Mayport.

Legislative Activity for FY2013

FY2013 Budget

The Navy's proposed FY2013 budget and the FY2013-FY2017 Future Years Defense Plan (FYDP) contain no funding for Military Construction (MilCon) projects required to homeport a CVN at Mayport.⁵⁸ The Navy states: "Although the FY 2013 budget does not contain a construction project supporting the homeporting of a CVN in Mayport, FL, the Department [of the Navy] is committed to the requirement and policy to strategically disperse CVNs on each coast. This is a deferral at this time due to fiscal constraints."⁵⁹

⁵⁸ Source for statement regarding funding in the FY2013-FY2017 FYDP: Navy briefing for House Armed Services Committee staff on the Navy's proposed FY2013 budget, February 14, 2012. At the invitation of the committee, CRS staff attended the briefing.

⁵⁹ Department of the Navy, *Highlights of the Department of the Navy FY 2013 Budget*, February 2012, p. 6-3.

Appendix A. FY2007-FY2012 Legislative Activity

FY2012

FY2012 Funding Request

The Navy's proposed FY2012 budget requests \$14.998 million in military construction (MilCon) funding for the Massey Avenue Corridor Improvements project, a roadway construction project that is part of the Navy's plan for establishing a CVN home port at Mayport. In addition, the Navy states that of the \$84.36 million in funding requested by the Navy for FY2012 for MilCon planning and design activities, about \$2 million is requested for the project to establish a CVN home port at Mayport.⁶⁰

FY2012 National Defense Authorization Act (H.R. 1540/P.L. 112-81)

House

The House Armed Services Committee, in its report (H.Rept. 112-78 of May 17, 2011) on H.R. 1540, recommends rejecting the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 471).

The committee's report also recommends reducing by \$15 million the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 472). Although the Navy states that about \$2 million of the \$84.36 million requested for planning and design activities is for establishing a CVN home port at Mayport, the committee's recommended reduction of \$15 million appears to reflect a committee view that \$15 million of the \$84.36 million requested for planning and design activities is for work to facilitate the homeporting of a CVN at Mayport.

The committee's report states:

The committee recommends reduction or elimination of funding for several projects contained in the budget request for military construction and family housing. These reductions include:

(1) \$14,998,000 for the Massey Avenue Corridor Improvements and

[2] \$15,000,000 in Planning and Design for construction activities at Naval Station Mayport, Florida.

The budget request included \$14,998,000 to construct road improvements at Naval Station Mayport, Florida, and \$15,000,000 to support planning and design efforts to facilitate the homeporting of a nuclear-powered aircraft carrier.

⁶⁰ Source: Navy Office of Legislative Affairs telephone conversation with CRS on May 12, 2011.

The committee notes that the Department of the Navy has located a variety of strategic assets at one homeport for many years across the range of Navy assets to include aviation, surface, and subsurface combatants. Furthermore, the committee notes that the Department of the Navy has intentionally rejected the notion of strategic homeporting and has closed multiple locations that were deemed strategic homeports through the Base Realignment and Closure process. The committee believes that the Department of the Navy's assertion that strategic homeporting is required to maintain strategic access is inconsistent with previous naval decisions. As to costs, the onetime construction costs to implement the Department of the Navy's recommendation exceeds \$500.0 million, and the recurring costs include a requirement to temporarily relocate nuclear capable shipyard workers from Norfolk, Virginia, to Mayport, Florida, to complete nuclear maintenance requirements. The committee believes that the overall costs to build a redundant carrier homeport do not appear to be in the Government's best interest.

Accordingly, the committee recommends no funds, a reduction of \$29,998,000, for this project. (Pages 277-278)

Senate (S. 1867, As Reported)

S. 1867, an original measure reported by Senator Levin on November 15, 2011, without written report, in effect supersedes S. 1253 (see below). S. 1867 recommends approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project. (See Section 4501 of the bill. In the printed version of the bill, the relevant table within this section appears on page 667.) The bill recommends reducing by \$15 million the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities. (See Section 4501 of the bill. In the printed version of the bill, the relevant table within this section appears on page 668.)

Senate (S. 1867, Floor Consideration)

On November 30, 2011, as part of its consideration of S. 1867, the Senate adopted by unanimous consent S.Amdt. 1210, which requires a Navy analysis of the costs and benefits of stationing additional DDG-51 class destroyers at Mayport and a subsequent GAO assessment of the Navy analysis. The text of S.Amdt. 1210 is as follows:

At the end of subtitle C of title X, add the following:

SEC. 1024. ASSESSMENT OF STATIONING OF ADDITIONAL DDG-51 CLASS DESTROYERS AT NAVAL STATION MAYPORT, FLORIDA.

(a) Navy Assessment Required.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the Secretary of the Navy shall conduct an analysis of the costs and benefits of stationing additional DDG-51 class destroyers at Naval Station Mayport, Florida.

(2) ELEMENTS.—The analysis required by paragraph (1) shall include, at a minimum, the following:

(A) Consideration of the negative effects on the ship repair industrial base at Naval Station Mayport caused by the retirement of FFG-7 class frigates and the procurement delays of the Littoral Combat Ship, including, in particular, the increase in costs (which would be passed

on to the taxpayer) of reconstituting the ship repair industrial base at Naval Station Mayport following the projected drastic decrease in workload.

(B) Updated consideration of life extensions of FFG-7 class frigates in light of continued delays in deliveries of the Littoral Combat Ship deliveries.

(C) Consideration of the possibility of bringing additional surface warships to Naval Station Mayport for maintenance with the consequence of spreading the ship repair workload appropriately amongst the various public and private shipyards and ensuring the long-term health of the shipyard in Mayport.

(b) Comptroller General of the United States Assessment.—Not later than 120 days after the submittal of the report required by subsection (a), the Comptroller General of the United States shall submit to Congress an assessment by the Comptroller General of the report, including a determination whether or not the report complies with applicable best practices.

Senate (S. 1253)

S. 1253 has been, in effect, superseded by S. 1867 (see above). S. 1253 as reported by the Senate Armed Services Committee (S.Rept. 112-26 of June 22, 2011) recommends approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project and Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities. (See Section 4501 of the bill as reported by the committee. In the printed version of the bill as reported by the committee, the relevant table within this section appears on pages 651-652.)

The committee's report states:

Comptroller General report on aircraft carrier homeporting on the East Coast

The committee directs the Comptroller General to conduct an independent analysis of alternatives on the Department of the Navy's plan to establish a second east coast homeport for a nuclear-powered aircraft carrier. The analysis should assess, at a minimum, the strategic, fiscal, and operational risks, requirements, and constraints the Navy's plan seeks to address. The committee directs that this report be provided to the congressional defense committees by February 1, 2012. The report will be submitted in an unclassified format, with the provision for a classified annex if necessary. (Page 241)

Conference

The conference report (H.Rept. 112-329 of December 12, 2011) on H.R. 1540/P.L. 112-81 of December 31, 2011, recommends approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 952) and reducing by \$15 million the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 953). The report states:

The conferees determined that the Massey Avenue Corridor Improvements Project had merit to support requirements at the Naval Station Mayport, Florida, whether or not a nuclear powered aircraft carrier was home ported there. (Page 757)

Section 1017 of the conference report states:

SEC. 1017. ASSESSMENT OF STATIONING OF ADDITIONAL DDG-51 CLASS DESTROYERS AT NAVAL STATION MAYPORT, FLORIDA.

(a) Navy Assessment Required-

(1) IN GENERAL- Not later than one year after the date of the enactment of this Act, the Secretary of the Navy shall conduct an analysis of the costs and benefits of stationing additional DDG-51 class destroyers at Naval Station Mayport, Florida.

(2) ELEMENTS- The analysis required by paragraph (1) shall include, at a minimum, the following:

(A) Consideration of the negative effects on the ship repair industrial base at Naval Station Mayport caused by the retirement of FFG-7 class frigates and the procurement delays of the Littoral Combat Ship, including, in particular, the increase in costs (which would be passed on to the taxpayer) of reconstituting the ship repair industrial base at Naval Station Mayport following the projected drastic decrease in workload.

(B) Updated consideration of life extensions of FFG-7 class frigates in light of continued delays in deliveries of the Littoral Combat Ship deliveries.

(C) Consideration of the possibility of bringing additional surface warships to Naval Station Mayport for maintenance with the consequence of spreading the ship repair workload appropriately amongst the various public and private shipyards and ensuring the long-term health of the shipyard in Mayport.

(b) Comptroller General of the United States Assessment- Not later than 120 days after the submittal of the report required by subsection (a), the Comptroller General of the United States shall submit to Congress an assessment by the Comptroller General of the report, including a determination whether or not the report complies with applicable best practices.

FY2012 Military Construction and Veterans Affairs and Related Agencies Appropriations Act (H.R. 2055/P.L. 112-74)

House

The House Appropriations Committee, in its report (H.Rept. 112-94 of May 31, 2011) on H.R. 2055, recommends approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 74) and the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 86).

Senate

The Senate Appropriations Committee, in its report (S.Rept. 112-29 of June 30, 2011) on H.R. 2055, recommends approving the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 80) and the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 105).

Conference

In final action, H.R. 2055 became a consolidated appropriations act incorporating nine appropriations bills, including the FY2012 Military Construction and Veterans Affairs and Related Agencies Appropriations Act itself, which was incorporated as Division H. The conference report (H.Rept. 112-331 of December 15, 2011) on H.R. 2055/P.L. 112-74 of December 23, 2011, approves the Navy's FY2012 request for \$14.998 million in MilCon funding for the Massey Avenue Corridor Improvements Project (page 1271) and the Navy's FY2012 request for \$84.36 million in MilCon funding for planning and design activities (page 1283).

FY2011

FY2011 Funding Request

Of the \$120.05 million in funding requested by the Navy for FY2011 for MilCon planning and design activities, about \$2 million is for the project to establish a CVN home port at Mayport.⁶¹

FY2011 DOD and Full-Year Continuing Appropriations Act (H.R. 1473)

Section 2001 of Title X of Division B of the FY2011 Department of Defense and Full-Year Continuing Appropriations Act (H.R. 1473 of the 112th Congress, introduced on April 11, 2011, and passed by the House and Senate on April 14, 2011) provides \$3,303.611 million for the Military Construction, Navy and Marine Corps account, or \$575.493 million less than the requested figure of \$3,879.104 million. The text of H.R. 1473 does not provide line-item funding details for the military construction accounts.

FY2011 Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill (H.R. 5822/S. 3615)

House

The House Appropriations Committee, in its report (H.Rept. 111-559 of July 22, 2010) on H.R. 5822 of the 111th Congress, recommends \$123.75 million—a \$3.7-million increase to the Navy's FY2011 request—for MilCon planning and design activities (page 124). The report does not discuss the issue of homeporting a CVN at Mayport.

Senate

The Senate Appropriations Committee, in its report (S.Rept. 111-226 of July 19, 2010) on S. 3615, recommends \$124.148 million—a \$4.098-million increase to the Navy's FY2011 request—for MilCon planning and design activities (page 102). The report does not discuss the issue of homeporting a CVN at Mayport.

⁶¹ Source: Navy Office of Legislative Affairs telephone conversation with CRS on April 1, 2010. See also the spoken testimony of Deputy Secretary of Defense William Lynn III at a March 4, 2010, hearing before the House Budget Committee on DOD's proposed FY2011 budget.

FY2011 Ike Skelton National Defense Authorization Act (H.R. 6523/P.L. 111-383)

House (H.R. 5136)

Section 2201(c)(4) of the FY2011 defense authorization bill (H.R. 5136) as reported by the House Armed Services Committee (H.Rept. 111-491 of May 21, 2010) states: “None of the funds appropriated pursuant to this authorization of appropriations may be used for architectural and engineering services and construction design of any military construction project necessary to establish a homeport for a nuclear-powered aircraft carrier at Naval Station Mayport, Florida.” H.Rept. 111-491 includes report language requiring the Navy and GAO to submit reports concerning the costs and maintenance impacts of homeporting a CVN at Mayport.

H.Rept. 111-491 states:

East Coast Homeport Cost Assessment

The committee is concerned that the full costs associated with the planned second East coast homeport for a nuclear-powered aircraft carrier has been underestimated, introducing a measure of budgetary risk and potential shortfalls in future year’s defense budget submissions. The committee directs that, not later than February 15, 2011, the Government Accountability Office (GAO) submit to the congressional defense committees a report containing an independent estimate of the total direct and indirect costs to be incurred by the Federal Government in homeporting a nuclear carrier at Mayport, Florida. (Page 507)

The report also states:

Naval Station Mayport, Florida, Homeporting Alternatives

The committee directs the Secretary of the Navy to report to the congressional defense committees, not later than December 15, 2010, on the implementation and recurring costs of homeporting alternatives including the following homeporting options at Naval Station Mayport:

- (1) Nuclear-powered aircraft carrier;
- (2) Littoral Combat Ships;
- (3) Non-nuclear options considered in the “Environmental Impact Statement for Homeporting of Additional Surface Ships at Naval Station Mayport” signed January 14, 2009; and
- (4) Other options that the Secretary considers appropriate. Such a review shall include an assessment of one-time and recurring operation and maintenance requirements and military construction requirements associated with the various alternatives. This report shall review the benefits to the northeast Florida ship maintenance industrial base that could result from the homeporting of non-nuclear vessels at the installation.

The committee notes that the estimates for the costs of homeporting a nuclear aircraft carrier at Naval Station Mayport continue to rise, and may cost as much as \$1 billion in military construction and recurring operation and maintenance costs.

The committee believes that a better assessment of these cost estimates of the various alternatives is warranted. The committee also believes that a complement of non-nuclear-powered surface combatants could be more compatible with the existing support structure at Naval Station Mayport and less expensive than duplicating a nuclear maintenance capability that already exists on the East Coast. The committee also notes that the northeast Florida ship maintenance industrial base could be enhanced if the Department of the Navy were to base non-nuclear-powered ships at Naval Station Mayport. Naval Station Mayport already has the pier infrastructure necessary to homeport non-nuclear-powered surface combatant ships, and the maintenance requirements of these alternative homeporting solutions appear to be more closely matched to the expertise of the existing local ship repair industrial base.

Finally, the committee understands that a nuclear-powered aircraft carrier homeported at Naval Station Mayport could undergo at the installation only two of the four types of scheduled carrier maintenance availabilities: the Carrier Incremental Availability and the Planned Incremental Availability. These activities would likely provide the local private shipyards with combined yearly revenues of only approximately \$20 million. Furthermore, the Navy has indicated that the remaining two types of scheduled nuclear maintenance availabilities can be conducted only in the Norfolk area, requiring a temporary shift in homeport to Norfolk to complete these availabilities. The committee believes that such a temporary shift in homeport could present an additional requirement on carrier crews and their families that could be avoided if Naval Station Mayport were resourced with non-nuclear-powered ships. (Pages 510-511)

The report also states:

Use of Temporary Shipyard Workforce for Nuclear Maintenance

According to the final environmental impact statement for the proposed homeporting of additional surface ships at Naval Station Mayport, Florida, homeporting of a nuclear-powered aircraft carrier (CVN) would result in “temporary surges of maintenance employees associated with the three-year depot-level maintenance cycle for the CVN.” The committee is concerned about the impact the addition of depot-level workload at Mayport would have on the sustainability, efficiency, capabilities, and stability of the fly-away teams from the nuclear propulsion depot maintenance workforce used under the Navy’s “One Nuclear Shipyard” concept. The committee directs the Comptroller General of the United States to provide an assessment to the congressional defense committees by February 15, 2011, of the readiness and cost impacts of CVN homeporting and maintenance at Naval Station Mayport on the U.S. nuclear power-plant depot maintenance workforce. (Page 254)

The report also states:

Ship Maintenance Industrial Base Support

The committee is concerned that the Navy’s recommendation to homeport a nuclear-powered aircraft carrier (CVN) at Naval Station Mayport (NAVSTA Mayport), Florida, could result in the relocation of a critical warfighting asset to a region that may lack the ship maintenance industrial base necessary to meet the specialized repair, maintenance, and related readiness requirements of a nuclear-powered aircraft carrier. Even though the Navy plans to build the necessary facilities at considerable cost, no plan has been presented to address the lack of a trained, highly skilled workforce necessary to staff those facilities and maintain these complex systems. As a result, the committee understands that implementation of the Navy’s recommendation would require maintenance teams from other nuclear-powered aircraft carrier homeport locations to be sent to NAVSTA Mayport temporarily to support maintenance requirements, potentially at significant additional cost.

Additionally, the committee is aware that the existing private ship maintenance assets located in the Jacksonville, Florida, region has evolved to support the current fleet of non-nuclear-powered ships at NAVSTA Mayport. Under current ship retirement plans, these private ship maintenance capabilities will face severe work reductions, placing their continued existence in jeopardy. The committee does not believe that placing a critical warfighting asset at a location with inadequate maintenance support capabilities, implementing a recommendation that could result in significantly increased ship maintenance costs, or allowing the nation's ship maintenance industrial base to erode are acceptable outcomes.

Therefore, the committee directs the Secretary of the Navy to provide a report to the congressional defense committees by December 15, 2010, on the ability of the private ship maintenance industrial base in northeast Florida to support nuclear-powered aircraft carrier maintenance requirements, the likely costs to the Navy that could result from establishing such maintenance capabilities within the local industrial base, and the impacts on costs and workforce scheduling that could result if the Navy must provide the maintenance workforce from another nuclear-powered aircraft carrier homeport location. In addition, the Secretary is directed to submit a copy of the report to the Comptroller General of the United States concurrent with submission to the congressional defense committees.

The committee directs the Comptroller General to provide an assessment of the report to the congressional defense committees within 90 days after receiving the report by the Secretary of the Navy. The assessment should:

- (1) Review the Navy's report for thoroughness and completeness;
- (2) Assess the ability of the northeast Florida industrial base to develop capabilities to support nuclear-powered aircraft carrier maintenance requirements;
- (3) Assess how, over a 10-year budget window, the construction of CVN maintenance facilities at NAVSTA Mayport will affect CVN maintenance costs, including recurring and non-recurring costs; and
- (4) Assess whether homeporting a nuclear-powered aircraft carrier at NAVSTA Mayport would provide sufficient workload to allow the local ship repair industrial base to remain viable in light of current ship retirement plans. (Pages 260-261)

Senate (S. 3454)

The FY2011 defense authorization bill (S. 3454) as reported by the Senate Armed Services Committee (S.Rept. 111-201 of June 4, 2010) does not contain a provision similar to Section 2201(c)(4) of H.R. 5136 as reported by the House Armed Services Committee (see above). S.Rept. 111-201 does not discuss the issue of homeporting a CVN at Mayport.

Final Version (H.R. 6523/P.L. 111-383)

The joint explanatory statement of the House and Senate Armed Services Committees on H.R. 6523/P.L. 111-383 of January 7, 2011, stated:

The House bill contained a provision (sec. 2201) that would authorize appropriations for the active component military construction and family housing projects of the Navy and Marine Corps for fiscal year 2011. This provision would also provide an overall limitation on the

cost of the fiscal year 2011 military construction and family housing projects authorized for the active-duty component of the Navy and Marine Corps.

The Senate committee-reported bill contained a similar provision (sec. 2204).

The agreement includes the House provision with an amendment deleting a restriction on architectural and engineering services and design funds. While the agreement imposes no restrictions on architectural and engineering services and construction design funds, such restrictions may be warranted in the future. The lack of restriction in this agreement for such funds to establish a homeport for a nuclear-powered aircraft carrier at Naval Station Mayport, Florida, should not imply a position either for or against homeporting. Such a position will be determined should military construction projects be included in future budget submissions. We will review carefully any such projects that may be included in future budget requests, while closely examining evolving military construction cost estimates needed to achieve this capability.

FY2010

FY2010 Military Construction Funding Request

The Navy's proposed FY2010 budget requested \$46.303 million in Military Construction (MilCon) funding for channel dredging at Mayport to support the ability of a CVN to enter Mayport. The budget also requested \$29.682 million in MilCon funding to repair a wharf (Wharf Charlie) at Mayport, but this request was *not* related to Mayport's ability to support a CVN—it was related to Mayport's current role as a home port to CGs, DDGs, and FFGs. Together, a total of \$75.985 million was requested for channel dredging (CVN-related) and wharf repair (not CVN-related) at Mayport.

FY2010 National Defense Authorization Act (H.R. 2647/P.L. 111-84)

House

The House Armed Services Committee, in its report (H.Rept. 111-166 of June 18, 2009) on H.R. 2647, recommended rejecting the Administration's FY2010 request for \$46.3 million in MilCon funding for channel dredging at Mayport. (Page 496) The committee's report stated:

The budget request included \$46,303,000 to support construction dredging of the Naval Station Mayport turning basin, inner channel, and outer channel.

The committee is concerned that a decision to complete the construction dredging of Naval Station Mayport would predispose a Quadrennial Defense Review's determination as to an East Coast Nuclear Aircraft Carrier basing.

Accordingly, the committee recommends \$0, a reduction of \$46,303,000, to support this project. (Page 516).

The committee's report also stated:

Comptroller General Assessment of Military Basing Decision Process

The committee directs the Comptroller General of the United States to submit a report to the congressional defense committees by May 1, 2010, on the military services' decision process used in making basing determinations, such as the decision to establish a second homeport for a nuclear-powered aircraft carrier on the East Coast of the United States. The committee believes this decision raises significant strategic, cost, and risk questions.

It is not clear to the committee how the Navy has been determining its basing decisions. For example, the Navy's consideration of whether to homeport additional surface ships at Naval Station Mayport (NAVSTA Mayport), Florida, appears to lack strategic depth. The committee notes that homeporting a nuclear aircraft carrier at NAVSTA Mayport would cost at least \$560.0 million in military construction, require the dredging and disposal of approximately 5.2 million cubic yards of dredge material, and increase long-term operation and maintenance costs. The Navy does not appear to have carried out a comprehensive process to determine the need for such expenditures with consideration for strategic rationale, fiscal realities, environmental impacts, and personnel impacts associated with the decision.

In light of the substantial costs and the strategic and community impacts that result from basing decisions, the committee directs the Comptroller General to conduct a study on the manner in which the military services consider and utilize the following in making basing decisions: changes to military force structure, strategic imperative and risk assessment, input from combatant commanders, cost, and environmental and socio-economic impacts. Specifically, the review should address the following:

- (1) Military force structure considerations: When rebasing military assets from one installation to another, the processes the military services use to assess the impact associated with the current and future home stations or homeports.
- (2) Strategic imperative and risk assessment: The extent to which the military services consider strategic shifts in force posture, such as the shift of naval assets from the Atlantic Ocean to the Pacific Ocean, in basing decisions. When making basing decisions related to strategic dispersal of military assets, the process used by the services to conduct and consider risk assessments. In making the nuclear aircraft carrier homeporting decision, how the Navy weighed the comparative risk between the different needs of the Navy. For example, the consideration the Navy gave to building an additional nuclear aircraft carrier homeport at Naval Station Mayport versus failing to meet ship maintenance and repair shortfalls, or the need for a 313-ship Navy.
- (3) Cost: The extent to which the military services use a cost-benefit analysis in making basing decisions and the extent to which the budgetary requirements of the entire military service and Department of Defense are considered; the consideration given in the decision-making process to shortfalls in other service budgets and other internal budget accounts; and how the services' analyses compare the strategic benefits of expending funds for one purpose (such as the construction of additional infrastructure) to the use of funds for other purposes (such as meeting unfunded procurement requirements) in determining whether to proceed with a decision. (Pages 537-538)

Senate

Section 2201 of the FY2010 defense authorization bill (S. 1390) as reported by the Senate Armed Services Committee (S.Rept. 111-35 of July 2, 2009) recommended approving the Administration's FY2010 request for a total of \$75.985 million for MilCon projects (including the channel dredging project) at Mayport. (See page 753 of the printed bill.) The committee's

report did not contain any narrative language directly discussing the issue of carrier homeporting at Mayport.

Section 114 of S. 1390 would require the Navy to submit a report to the congressional defense committees on a potential service life extension program (SLEP) for the Navy's Oliver Hazard Perry (FFG-7) class frigates. FFG-7s account for several of the surface combatants currently homeported at Mayport, and the FFG-7s homeported at Mayport are currently scheduled to be retired from Navy service by 2014. The text of Section 114 is as follows:

SEC. 114. REPORT ON A SERVICE LIFE EXTENSION PROGRAM FOR OLIVER HAZARD PERRY CLASS FRIGATES.

Not later than 90 days after the date of the enactment of this Act, the Secretary of the Navy shall submit to the congressional defense committees a report setting forth the following:

(1) A detailed analysis of a service life extension program (SLEP) for the Oliver Hazard Perry class frigates (FFGs), including—

(A) the cost of the program;

(B) a schedule for the program; and

(C) the shipyards available to carry out the work under the program.

(2) A detailed plan of the Navy for achieving a 313-ship fleet as contemplated by the 2006 Quadrennial Defense Review, including a comparison for purposes of that plan of decommissioning Oliver Hazard Perry class frigates as scheduled with extending the service life of such frigates under the service life extension program.

(3) The strategic plan of the Navy for the manner in which the Littoral Combat Ship (LCS) will fulfill the roles and missions currently performed by the Oliver Hazard Perry class frigates as they are decommissioned.

(4) The strategic plan of the Navy for the Littoral Combat Ship if the extension of the service life of the Oliver Hazard Perry class frigates alleviates demand arising under the current capabilities gap in the Littoral Combat Ship.

(5) A description of the manner in which the Navy has met the needs of the United States Southern Command over time, including the assets and vessels the Navy has deployed for military-to-military engagements, UNITAS exercises, and counterdrug operations in support of the Commander of the United States Southern Command during the five-year period ending on the date of the report.

Section 112 of S. 1390 would require the Navy to submit a report to the congressional defense committees on the Navy's plans for homeporting Littoral Combat Ships (LCSs). Under current Navy plans, LCSs are to replace Oliver Hazard Perry (FFG-7) class frigates in the Navy's force structure. The text of Section 112 is as follows:

SEC. 112. REPORT ON STRATEGIC PLAN FOR HOMEPORTING THE LITTORAL COMBAT SHIP.

(a) Report Required- Not later than 90 days after the date of the enactment of this Act, the Secretary of the Navy shall submit to the congressional defense committees a report setting

forth the strategic plan of the Navy for homeporting the Littoral Combat Ship (LCS) on the East Coast and West Coast of the United States.

(b) Elements- The report required by subsection (a) shall include the following:

(1) The requirements for homeporting of the Littoral Combat ship of the commanders of the combatant commands, set forth by geographic area of responsibility (AOR).

(2) A description of the manner in which the Navy will meet the requirements identified under paragraph (1).

(3) An assessment of the effect of each type of Littoral Combat Ship on each port in which such ship could be homeported.

(4) A map, based on the current plan of 55 Littoral Combat Ships, identifying where each ship will homeport and how such ports will accommodate both types of Littoral Combat Ships, based on the current program and a 313-ship Navy.

(5) An estimate of the costs of infrastructure required for Littoral Combat Ships at each homeport, including—

(A) existing infrastructure; and

(B) such upgraded infrastructure as may be required.

Conference

The conference report (H.Rept. 111-288 of October 7, 2009) on H.R. 2647/P.L. 111-84 of October 28, 2009, authorized the Administration's FY2010 request for \$46.3 million in MilCon funding for channel dredging at Mayport. (Page 633) The report states:

The conference agreement includes authorization for \$46.3 million for channel and turning basin dredging at Naval Station (NS) Mayport, Florida. The Navy requested this project in order to allow a nuclear aircraft carrier to enter Naval Station Mayport on a temporary basis with an embarked air wing, full stores, and under any tidal conditions. The conferees authorize funding for this project based on the Secretary of the Navy and Chief of Naval Operations' assurances that the dredging is needed for current operational considerations to permit the use of Mayport as a transient dock and is "required irrespective of the final decision on aircraft carrier homeporting at Mayport."

The conferees emphasize that the inclusion of an authorization for dredging at NS Mayport is not an indication of conferee support for the establishment of an additional homeport for nuclear aircraft carriers on the east coast, or intended to influence the ongoing Quadrennial Defense Review, which may include a recommendation on the establishment of a second east coast homeport for nuclear aircraft carriers. Furthermore, the conferees note that this funding is provided solely to permit use of Mayport as a transient port, and that any potential designation of Mayport as a nuclear carrier homeport will require future authorizations from the Committees on Armed Services of the Senate and the House of Representatives. (Page 870)

Section 127 required the Navy to submit a report to the congressional defense committees on a potential service life extension program (SLEP) for the Navy's Oliver Hazard Perry (FFG-7) class frigates. FFG-7s account for several of the surface combatants currently homeported at Mayport,

and the FFG-7s homeported at Mayport are currently scheduled to be retired from Navy service by 2014. The text of Section 127 is as follows:

SEC. 127. REPORT ON A SERVICE LIFE EXTENSION PROGRAM FOR OLIVER HAZARD PERRY CLASS FRIGATES.

Not later than 90 days after the date of the enactment of this Act, the Secretary of the Navy shall submit to the congressional defense committees a report setting forth the following:

(1) A detailed analysis of a service life extension program for the Oliver Hazard Perry class frigates, including—

(A) the cost of the program;

(B) a notional schedule for the program; and

(C) the shipyards available to carry out the work under the program.

(2) The strategic plan of the Navy for—

(A) the manner in which the Littoral Combat Ship will fulfill the roles and missions currently performed by the Oliver Hazard Perry class frigates as such frigates are decommissioned; and

(B) the year-by-year planned commissioning of Littoral Combat Ships and planned decommissioning of Oliver Hazard Perry class frigates through the projected service life of the Oliver Hazard Perry class frigates.

(3) An analysis of the necessary procurement rates of Littoral Combat Ships if the extension of the service life of the Oliver Hazard Perry class frigates alleviates capability gaps caused by a delay in the procurement rates of Littoral Combat Ships.

(4) A description of the manner in which the Navy has met the requirements of the United States Southern Command over time, including the assets and vessels the Navy has deployed for military-to-military engagements, UNITAS exercises, and counterdrug operations in support of the Commander of the United States Southern Command during the five-year period ending on the date of the report.

Section 123 of the bill required the Navy to submit a report to the congressional defense committees on the Navy's plans for homeporting Littoral Combat Ships (LCSs). Under current Navy plans, LCSs are to replace Oliver Hazard Perry (FFG-7) class frigates in the Navy's force structure. The text of Section 123 is as follows:

SEC. 123. REPORT ON STRATEGIC PLAN FOR HOMEPORTING THE LITTORAL COMBAT SHIP.

(a) REPORT REQUIRED.—At the same time that the budget is submitted under section 1105(a) of title 31, United States Code, for fiscal year 2011, the Secretary of the Navy shall submit to the congressional defense committees a report setting forth the strategic plan of the Navy for homeporting the Littoral Combat Ship on the east coast and west coast of the United States.

(b) ELEMENTS.—The report required by subsection (a) shall include the following:

(1) An analysis of how the homeporting plan would support the requirements of the commanders of the combatant commands, by geographic area of responsibility, for the capabilities delivered by Littoral Combat Ships, including the notional transit times to the various geographic areas of responsibility.

(2) An assessment of the effect that each type of Littoral Combat Ship would have on each port in which such ship could be homeported, including an identification of the infrastructure required to support each such ship with respect to—

(A) the availability of pier space with supporting ship services infrastructure, taking into account the largest fleet size envisioned by the long-term plan for the construction of naval vessels submitted for fiscal year 2011;

(B) the logistical and maintenance support services required in any port chosen for the Littoral Combat Ships; and

(C) any investment in naval station infrastructure required for homeporting Littoral Combat Ships (including a plan for such investment).

(3) With respect to the projected force structure size of the Navy in fiscal year 2020, a graphical depiction of the total planned ships berthing in the pier areas of any naval facility chosen to homeport Littoral Combat Ships, including the identification of the ships berthing plan for the maximum number of ships expected in-port at any one time.

The report required by Section 123 was submitted to Congress in February 2010.

FY2010 Military Construction and Veterans Affairs Appropriations Act (H.R. 3082/H.R. 3288/P.L. 111-117)

House

The House Appropriations Committee, in its report (H.Rept. 111-188 of June 26, 2009) on H.R. 3082, recommended approving the Administration's FY2010 request for \$46.3 million in MilCon funding for channel dredging at Mayport. (Page 107)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 111-40 of July 7, 2009) on the FY2010 military construction and veterans affairs appropriations bill (S. 1407), recommended approving the Administration's FY2010 request for \$46.3 million in MilCon funding for channel dredging at Mayport. (Page 88)

Conference

H.R. 3082 was incorporated as Division E of H.R. 3288/P.L. 111-117 of December 16, 2009, a bill that became a consolidated appropriations act. The conference report (H.Rept. 111-366 of December 8, 2009) on H.R. 3288/P.L. 111-117 approved the Administration's FY2010 request for \$46.3 million in MilCon funding for channel dredging at Mayport. (Page 1410)

FY2009

FY2009 Duncan Hunter National Defense Authorization Act (S. 3001/P.L. 110-417)

Section 2207 of the FY2009 defense authorization bill as passed by the House (H.R. 5658; H.Rept. 110-652 of May 16, 2008) stated:

SEC. 2207. REPORT ON IMPACTS OF SURFACE SHIP HOMEPORTING ALTERNATIVES.

(a) Report Required- The Secretary of the Navy shall not issue a record of decision for the proposed action of homeporting additional surface ships at Naval Station Mayport, Florida, until at least 30 days after the date on which the Secretary submits to Congress a report containing an analysis of the socio-economic impacts and an economic justification on each location from which a vessel is proposed to be removed for homeporting at Naval Station Mayport under the preferred alternative identified in the final environmental impact statement for the proposed action.

(b) Additional Reporting Requirement- If the final environmental impact statement does not contain a preferred alternative or if the Secretary intends to select an alternative other than the preferred alternative in the record of decision, then the Secretary shall submit to Congress a report (in the case where no preferred alternative is identified) or an additional report (in the case where the preferred alternative is not selected) containing an analysis of the socio-economic impacts and an economic justification on each location from which a vessel is proposed to be removed for homeporting at Naval Station Mayport.

The FY2009 defense authorization bill as passed by the Senate (S. 3001; S.Rept. 110-335 of May 12, 2008) did not contain a provision similar to Section 2207 of H.R. 5658.

In lieu of a conference report, there was compromise version of S. 3001 that was accompanied by a joint explanatory statement. The compromise version of S. 3001, which was signed into law as P.L. 110-417 of October 14, 2008, did not contain a provision similar to Section 2207 of H.R. 5658.

FY2008

FY2008 National Defense Authorization Act (H.R. 4986/P.L. 110-181)

The House Armed Services Committee, in its report (H.Rept. 110-146 of May 11, 2007) on the FY2008 defense authorization bill (H.R. 1585), stated:

Carrier Basing

The committee understands that the Navy has unused capacity at Naval Station Mayport, Florida, and is conducting an environmental impact statement on the feasibility of stationing additional surface ships, including a nuclear aircraft carrier, at Naval Station Mayport. The committee believes that Naval Station Mayport is an important defense asset that should be fully utilized. The committee is concerned that Naval Station Mayport has not previously served as homeport for a nuclear carrier and does not contain the considerable specialized infrastructure necessary to sustain and maintain such a vessel. Therefore, before the

Secretary of the Navy recommends the stationing of a nuclear carrier at Naval Station Mayport, the committee directs the Secretary to determine the full range of costs associated with the construction of nuclear infrastructure and port improvements at Naval Station Mayport necessary to support a nuclear carrier, including a detailed assessment of alternative sites, and submit the results of this analysis to the congressional defense committees by October 1, 2007. (Page 518)

FY2008 Military Construction, Veteran Affairs, and Related Agencies Appropriations Act (H.R. 2764/P.L. 110-161)

The House Appropriations Committee, in its report (H.Rept. 110-186 of June 11, 2007) on H.R. 2642, which at that point was the FY2008 military construction, veteran affairs, and related agencies appropriations bill, stated:

Carrier Homeporting.—The Committee understands that it is the Navy’s publicly stated policy to maintain two nuclear carrier-capable homeports on the east coast. The Committee further understands that the Navy is in the process of drafting an environmental impact statement (EIS) that includes the evaluation of the necessary infrastructure and dredging required to make Naval Station Mayport the second such homeport in addition to Naval Station Norfolk, and that a draft EIS will be released in early 2008. The Committee directs the Navy to provide a report to the Committee identifying the military construction requirements and an estimated timetable for completion for making Mayport a nuclear carrier-capable homeport no later than 30 days after release of the draft EIS. (Page 17)

H.R. 2642 later became the FY2008 supplemental appropriations act (P.L. 110-252 of June 30, 2008). The FY2008 military construction, veteran affairs, and related agencies appropriations bill was eventually enacted as part of the FY2008 consolidated appropriations act (H.R. 2764/P.L. 110-161 of December 26, 2007).

FY2007

FY2007 John Warner National Defense Authorization Act (H.R. 5122/P.L. 109-364)

The Senate Armed Services Committee, in its report (S.Rept. 109-254 of May 9, 2006) on the FY2007 defense authorization bill (S. 2766), stated:

The committee maintains its concern, expressed in the Senate report accompanying S. 1042 (S.Rept. 109-69) of the National Defense Authorization Act for Fiscal Year 2006, regarding the declining size of the naval force and the reduction to the number of aircraft carriers. The committee agrees, however, with the Navy’s determination that it is not feasible to maintain 12 operational aircraft carriers by restoring the USS John F. Kennedy (CV-67) to a deployable, fully mission-capable platform. The committee believes that it is vital to the national security of the United States that a fleet of at least 11 aircraft carriers be maintained to support the National Military Strategy, and has taken extraordinary action to support the CNO’s force structure plan by authorizing increased procurement for shipbuilding and, specific to aircraft carriers, by authorizing additional advance procurement and incremental funding for the construction of the first 3 CVN-21 class aircraft carriers.

Further, recognizing the increased need for timeliness of surge operations that today’s smaller force structure places on the Fleet Response Plan, the committee reaffirms the

judgment that the Chief of Naval Operations, Admiral Clark, provided in testimony before the Committee on Armed Services in February 2005, that the Atlantic Fleet should continue to be dispersed in two homeports. (Page 380)

S.Rept. 109-254 also presented additional views of Senator Bill Nelson relating to the homeporting of aircraft carriers on the Atlantic Coast. (See pages 528-529)

The conference report (H.Rept. 109-702 of September 29, 2006) on the FY2007 defense authorization bill (H.R. 5122) stated:

The conferees agree with the CNO statement in his letter dated August 14, 2006, to the Ranking Member of the Committee on Armed Services of the Senate, that “Naval Station Mayport and the many resources of the Jacksonville area remain vitally important to Navy readiness,” and support the CNO commitment “to maintaining the infrastructure necessary to support the strategic dispersal of the Atlantic Fleet at this key east coast port.” (Page 805)

Appendix B. Additional Background Information from May 2010 GAO Report

This appendix reprints Appendix II from a May 2010 GAO report on the Navy's basing decision process.⁶²

⁶² Government Accountability Office, *Defense Infrastructure[:] Opportunities Exist to Improve the Navy's Basing Decision Process and DOD Oversight*, GAO-10-482, May 2010. 36 pp.

Appendix II: Summary of the Navy's Decision to Homeport a Nuclear-Powered Aircraft Carrier at Mayport, Florida

The Navy Has Considered Homeporting a Carrier at Mayport, Florida, for Two Decades

The possibility of homeporting a nuclear-powered aircraft carrier at Naval Station Mayport was considered by Congress as early as 1990 in the National Defense Authorization Act for Fiscal Year 1991, which required the Secretary of Defense to submit to Congress a plan to upgrade Naval Station Mayport capability to enable the station to service nuclear-powered aircraft carriers and otherwise to serve as a homeport for these carriers.¹ Since that time, provisions of other National Defense Authorization Acts have required, among other things, that the Secretary of the Navy (1) submit to the congressional defense committees a report on the Navy's plan for developing a second East Coast homeport for nuclear-powered aircraft carriers and (2) begin design activities for such military construction projects as may be necessary to make Mayport capable of serving as a homeport for a nuclear-powered aircraft carrier.² In addition, the National Defense Authorization Act for Fiscal Year 1993 included a congressional finding that Naval Station Mayport ought to be the second East Coast homeport for nuclear-powered aircraft carriers when an additional homeport was needed.³

The Navy has been reporting to Congress, since the late 1990s on the development of plans for making Naval Station Mayport a potential homeport for nuclear-powered aircraft carriers. In addition, in March 1997, the Navy released a programmatic environmental impact statement.⁴ In 2001, the Quadrennial Defense Review called for the Navy to provide more warfighting assets more quickly to multiple locations. In order to meet this new demand, the Navy made its preliminary decision to homeport additional fleet surface ships at Naval Station Mayport. As a result, the Navy prepared an environmental impact statement to evaluate a broad range of strategic homeport and dispersal options for Atlantic Fleet surface ships at this location and finalized its final environment impact

¹ Pub. L. No. 101-510, § 1423 (1990).

² National Defense Authorization Act for Fiscal Year 1993, Pub. L. No. 102-484, § 1011(b) (1992), and National Defense Authorization Act for Fiscal Year 1995, Pub. L. No. 103-337, § 2206(a) (1994). However, Congress explicitly indicated that the provision in the National Defense Authorization Act for Fiscal Year 1995 should not be interpreted as authorizing the Secretary to actually proceed with the construction of facilities specifically designed to make Mayport capable of serving as a homeport. The design activities were to begin at the conclusion of a facilities study and programmatic environmental impact study.

³ Pub. L. No. 102-484, § 1011(a)(3).

⁴ Department of the Navy, Final Programmatic Environmental Impact Statement for Facilities Development Necessary to Support Potential Aircraft Carrier Homeporting at Naval Station Mayport, Florida, March 1997.

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statement.⁵ On January 14, 2009, the Navy issued its record of decision to homeport a nuclear-powered aircraft carrier at Naval Station Mayport, Florida.⁶

The Process the Navy
Used to Make Its Decision
to Homeport a Nuclear-
Powered Aircraft Carrier
at Mayport

According to Navy officials, the Department of the Navy made its recent decision to homeport a nuclear-powered aircraft carrier at Naval Station Mayport using its strategic laydown and strategic dispersal processes and its environmental planning guidance documents. In addition, the Navy stated in its record of decision that the most critical considerations in making the decision were the environmental impacts, recurring and nonrecurring costs associated with changes in surface ship homeporting options, and strategic dispersal considerations. However, according to its record of decision, the need to develop a hedge against the potentially crippling results of a catastrophic event was ultimately the determining factor in the Navy's decision to establish a second nuclear-powered aircraft carrier homeport on the East Coast of the United States at Mayport.

The Navy has historically had multiple aircraft carrier homeports on each coast. Currently, the Navy has three nuclear-powered aircraft carrier homeports on the West Coast—Bremerton and Everett, Washington, and San Diego, California—and one East Coast carrier homeport in the Hampton Roads area, which includes Norfolk and Newport News, Virginia.⁷ According to Navy officials,⁸ the Navy used elements of its strategic laydown process existing at the time the Mayport decision was in the process of being made to apportion the fleet to the Pacific (West)

⁵ On November 21, 2008, the Navy released the Notice of Availability of the Final Environmental Impact Statement for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, Florida.

⁶ Department of the Navy, *Record of Decision for Homeporting of Additional Surface Ships at Naval Station Mayport, FL* (Jan. 14, 2009), available at <http://www.mayporthomeportingeis.com>. The decision was signed by the Assistant Secretary of the Navy (Installations and Environment).

⁷ In the Pacific, the Navy also forward deploys a nuclear-powered aircraft carrier at Yokosuka, Japan.

⁸ Officials within the office of the Deputy Chief of Naval Operations (Information, Plans and Strategy) provided GAO with the information in regard to the Navy's decision to homeport a nuclear-powered aircraft carrier at Mayport. Unless information is attributed to a different Navy organization, these Navy officials provided us with the information described in this appendix.

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Coast, to the Atlantic (East) Coast based on its force structure analysis. According to officials, the process relies on several documents, including conventional campaign plans; homeland defense requirements; the *Cooperative Strategy for the 21st Century Seapower, Navy 2030 Ashore Vision*; the *2001 and 2006 Quadrennial Defense Review*, and the *Global Maritime Posture*. Based on these strategic laydown analyses, the Navy developed a baseline for the total Navy force structure to try to optimize the sourcing of forces based on the speed of response, the maritime strategy, and the Quadrennial Defense Review direction.

Using the output from the strategic laydown process, Navy officials said that they performed its strategic dispersal process, which allowed the Navy to further assess and determine the distribution of the fleet by homeport based on strategic requirements and the ability to balance operational, fiscal, and infrastructure factors. Based on its analysis, the Navy decided to establish a second East Coast homeport for a nuclear-powered aircraft carrier. Navy officials said that the Navy worked on the assumption that it would not establish a new carrier homeport but upgrade an existing carrier homeport to support nuclear-powered aircraft carriers. Navy officials said that Naval Station Mayport was the best option because it was an existing conventional carrier homeport with underutilized facilities since the *USS John F. Kennedy* was retired in 2007.

According to Navy officials, the Navy used its strategic dispersal process to evaluate key operational factors, such as response time to combatant commands, transit times to deployment areas and training, geographic location of air wings, historic aircraft carrier loading, physical pier capacity, transit times for pier side to open ocean, antiterrorism and force protection, and mitigation of natural and man-made risks for both the Hampton Roads area and Naval Station Mayport. For example, the Navy believes the following constitute risk factors associated with the nuclear-powered aircraft carrier consolidation in Hampton Roads: (1) singular homeport, maintenance, and support location; (2) all of the Atlantic Fleet nuclear-powered aircraft carrier trained crews, associated community support infrastructure, and nuclear carrier support facilities within a 15 nautical mile radius; (3) single 32 nautical mile access channel with two major choke points (bridges); (4) approximately 3-hour transit time from carrier piers to open ocean; and (5) the planned significant increase in commercial shipping volume because of the planned Craney Island upgrades. Furthermore, the Navy used the U.S. Coast Guard's Port Threat Assessments for the Coast Guard Sectors of Hampton Roads and Mayport, which determined that the overall threat level for Hampton Roads is moderate, while the overall threat level for Mayport is low. According to

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the threat assessments, a moderate threat level indicates a potential threat exists against the port and that one or more groups have either the intention or capability to employ large casualty-production attacks or cause denial of commercial, military, and passenger vessel access to the port, while a low threat level indicates that little or no information exists on one or more groups with a capability or intention to damage the port.

Navy officials also identified the following benefits associated with homeporting a nuclear-powered aircraft carrier at Naval Station Mayport:

- the shortest access to the Atlantic Ocean of any current Navy homeport,
- additional dispersed controlled industrial facility and nuclear maintenance capabilities,
- physical separation of East Coast nuclear-powered aircraft carriers,
- physical separation between piers and shipping lanes,
- smaller commercial shipping traffic volume, and
- strategic and operational flexibility.

Using the Navy's environmental planning guidance documents, officials from the Navy's Fleet Forces Command completed a final environmental impact statement in November 2008, in accordance with the National Environmental Policy Act, to evaluate a broad range of strategic homeport and dispersal options for Atlantic Fleet surface ships at Naval Station Mayport. Several analyses were conducted of geology and soils, wetlands and floodplains, water resources, air quality, noise, biological resources, cultural resources, hazardous and toxic substances and waste, and environmental health and safety. These analyses also included a summary of the environmental impacts and mitigation measures. As part of the environmental impact statement, cost estimates were also developed. The Navy's environmental analysis included consultations with regulatory agencies, such as the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, regarding impacts to endangered and threatened species, and the U.S. Army Corps of Engineers and the Environmental Protection Agency regarding dredging operations and the in-water disposal of dredged materials. In addition, public awareness and participation were integral components of the environmental impact statement process. The Navy took steps to provide members of the public, state agencies, and federal agencies with the opportunity to help define the scope of the Navy's analysis as well as examine and consider the studies undertaken by the Navy. Fleet Forces Command prepared the National Environmental Policy Act documentation and supporting studies

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that defined the proposed action and range of alternatives and identified the potential mitigation options.

The Navy's final environmental impact statement for Mayport assessed the impacts of 13 alternatives, including the no action alternative:

- Alternative 1: Cruiser homeport, destroyer homeport, or both.
- Alternative 2: Amphibious Assault Ship homeport.
- Alternative 3: Nuclear-powered aircraft carrier capable.
- Alternative 4: Nuclear-powered aircraft carrier homeport.
- Alternative 5: Amphibious Ready Group homeport.
- Alternatives 6-12: Seven different combinations of the first four alternatives.
- Alternative 13: No action. No additional fleet surface ships would be homeported at Naval Station Mayport, and Mayport would retain the ability to berth a nuclear-powered aircraft carrier in a limited fashion.

The 13 alternatives evaluated a broad range of options for homeporting surface ships at Navy Station Mayport, such as permanent assignment of various types of surface ships and personnel. In addition, Alternatives 3 and 4 differ because a nuclear-powered aircraft carrier capable alternative provides for port services—loading and unloading cargo and sailors and access without restrictions for visits up to 63 days per year. The nuclear-powered aircraft carrier homeport would permanently assign a carrier and its personnel to Naval Station Mayport, which would provide facilities to perform depot-level maintenance at that location.

In the final environmental impact statement, the Navy identified alternative 4 as the preferred alternative; which involves homeporting one nuclear-powered aircraft carrier at Naval Station Mayport and includes dredging, infrastructure and wharf improvements, on-station road and parking improvements, and construction of nuclear-powered aircraft carrier propulsion plant maintenance facilities. Other factors that influenced the selection of alternative 4 as the preferred alternative included impact analyses in the environmental impact statement and estimated costs of implementation, including military construction costs and other operation and sustainment costs. For example, the Navy's analysis showed that there are no environmental impacts associated with homeporting a nuclear-powered aircraft carrier at Naval Station Mayport that cannot be appropriately addressed or mitigated, including impacts to endangered species, such as the Florida manatee and sea turtles. In addition, the Navy reported that the projected recurring and nonrecurring costs for the preferred alternative are less than 10 percent of the cost of a single nuclear-powered aircraft carrier and less than 1 percent of the cost

	<p>Appendix II: Summary of the Navy's Decision to Homeport a Nuclear-Powered Aircraft Carrier at Mayport, Florida</p>
	<p>of the Department of the Navy's nuclear-powered aircraft carrier assets. The Navy believes that homeporting a nuclear-powered aircraft carrier at Naval Station Mayport is a way to provide additional security for the carrier and enhance deployment capability. In November 2008, the Navy made its final environmental impact statement available, and the Assistant Secretary of the Navy (Installations and Environment) signed the Navy's formal record of decision on January 14, 2009, to homeport a nuclear-powered aircraft carrier at Mayport.</p>
<p>2010 Quadrennial Defense Review of the Navy's Decision</p>	<p>After the Navy decided to homeport a nuclear-powered aircraft carrier at Naval Station Mayport, Florida, the Secretary of Defense announced that he would review the Navy's decision as part of DOD's 2010 Quadrennial Defense Review. The Secretary of Defense directed the Quadrennial Defense Review working group to assess the Navy's Mayport decision. According to OSD officials, the Navy provided supporting documentation regarding its decision to the working group, which used this information in conducting its analysis.</p> <p>In conducting its review, the Quadrennial Defense Review working group assessed the Navy's decision against nine implementation criteria: (1) execution of current or planned operations, (2) operational flexibility, (3) operational management of the force, (4) institutional provisions of the force, (5) organizational friction, (6) execution of future missions successfully against an array of future challenges, (7) consideration of the whole of government programs and initiatives, (8) international relations, and (9) environmental concerns. In addition, OSD officials stated that the working group assessed transit times for a nuclear-powered aircraft carrier to leave both the Norfolk and Mayport ports and arrive in the Atlantic Ocean.</p> <p>As a part of the working group's review, officials in DOD's Office of Cost Assessment and Program Evaluation stated that they evaluated the reasonableness of the Navy's cost estimate to establish a homeport for a nuclear-powered aircraft carrier at Mayport. Specifically, the officials said that they reviewed and assessed the military personnel, operations and maintenance, and military construction costs associated with the Navy's decision and found that the Navy's cost estimates were reasonable. For example, OSD officials stated that the working group was provided the following dollar amounts—a onetime cost of \$565 million to build the necessary infrastructure at Mayport and \$25 million as the recurring cost for operations and maintenance for homeporting a nuclear-powered aircraft at Mayport. In addition, the officials said that the working group</p>

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used these analyses and cost estimates to brief the Secretary of Defense on its results. The February 2010 Quadrennial Defense Review report reiterated the Navy's decision that homeporting an East Coast carrier in Mayport would contribute to mitigating the risk of a terrorist attack, accident, or natural disaster.

Appendix C. Excerpts from January 2009 Navy Record of Decision (ROD)

This appendix presents excerpts from the January 2009 Navy Record of Decision (ROD) document announcing the Navy's desire to transfer a CVN to Mayport. The document stated in part:

SUMMARY: The Department of the Navy (DON), after carefully weighing the strategic, operational, and environmental consequences of the proposed action, announces its decision to homeport one nuclear-powered aircraft carrier (CVN) at Naval Station (NAVSTA) Mayport. Today's decision does not relocate a specific CVN to NAVSTA Mayport. It does initiate a multiyear process for developing operational, maintenance, and support facilities at NAVSTA Mayport to support homeporting of one CVN. This multiyear process includes implementing projects for dredging and dredged material disposal, construction of CVN nuclear propulsion plant maintenance facilities, wharf improvements, transportation improvements, and construction of a parking structure to replace existing parking that would be displaced by development of the CVN nuclear propulsion plant maintenance facilities. The projects necessary to create the capacity to support CVN homeporting could be completed as early as 2014.⁶³ No CVN homeport change will occur before operational, maintenance, and support facility projects are completed. Selection of the CVN to be homeported at NAVSTA Mayport would not occur until approximately one year prior to the ship's transfer to NAVSTA Mayport. Selection of a specific CVN for homeporting at NAVSTA Mayport will be based upon then current operational needs, strategic considerations, and maintenance cycles.

The DON decision to utilize the capacity at NAVSTA Mayport to homeport a CVN is the culmination of a two and a half year process involving environmental analysis under the National Environmental Policy Act (NEPA), identification of the recurring and nonrecurring costs associated with homeporting surface ships at NAVSTA Mayport, and an assessment of strategic concerns.

The DON environmental analysis included extensive studies regarding impacts associated with dredging, facility construction, and homeport operations. The environmental analysis undertaken by the DON included lengthy and detailed consultations with regulatory agencies, such as the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), regarding impacts to endangered and threatened species, and the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) regarding dredging operations and the in-water disposal of dredged materials. Public awareness and participation were integral components of the Environmental Impact Statement (EIS) process. The DON ensured that members of the public, state agencies, and federal agencies had the opportunity to help define the scope of the DON's analysis as well as examine and consider the studies undertaken by the DON. Public review and comment on the DON's interpretation of those studies and the conclusions drawn from the DON's interpretation of associated data were robust.

The decision reached by the DON, as further explained later in this Record of Decision, is based upon the DON's environmental, operational, and strategic expertise and represents the

⁶³ As mentioned earlier, this "as early as" date may have been pushed back by DOD's announcement to delay a final decision on whether to propose transferring a CVN to Mayport until it reviews the issue as part of its 2009-2010 Quadrennial Defense Review (QDR).

best military judgment of the DON's leadership. The need to develop a hedge against the potentially crippling results of a catastrophic event was ultimately the determining factor in this decision-making process. The consolidation of CVN capabilities in the Hampton Roads area on the East Coast presents a unique set of risks. CVNs assigned to the West Coast are spread among three homeports. Maintenance and repair infrastructure exists at three locations as well. As a result, there are strategic options available to Pacific Fleet CVNs should a catastrophic event occur. By contrast, NAVSTA Norfolk is homeport to all five of the CVNs assigned to the Atlantic Fleet and the Hampton Roads area is the only East Coast location where CVN maintenance and repair infrastructure exists. It is the only location in the U.S. capable of CVN construction and refueling. The Hampton Roads area also houses all Atlantic Fleet CVN trained crews and associated community support infrastructure. There are no strategic options available outside the Hampton Roads area for Atlantic Fleet CVNs should a catastrophic event occur....

ALTERNATIVES CONSIDERED: The Draft and Final EIS assessed the impacts of 12 action alternatives and the no action alternative. Consistent with the purpose and need for the proposed action, the alternatives addressed only options for utilizing capacities at NAVSTA Mayport for homeporting additional surface ships. Examination of homeporting options at other geographic locations was not relevant to the established purpose and need, so no such alternatives were considered. The 12 action alternatives evaluated a broad range of options for homeporting surface ships at NAVSTA Mayport. The alternatives included ship types currently homeported at NAVSTA Mayport: destroyers (DDGs), and frigates (FFGs), as well as additional types of ships identified by the Chief of Naval Operations (CNO), including amphibious assault ships (LHDs), amphibious transport dock ships (LPDs), dock landing ships (LSDs), and a CVN.

In the Final EIS, the DON identified Alternative 4, as the Preferred Alternative. Alternative 4 involves homeporting one CVN at NAVSTA Mayport and included dredging, infrastructure and wharf improvements, on-station road and parking improvements, and construction of CVN nuclear propulsion plant maintenance facilities at NAVSTA Mayport. Factors that influenced selection of Alternative 4 as the Preferred Alternative included impact analyses in the EIS, estimated costs of implementation, including military construction and other operation and sustainment costs, and strategic considerations.

Regulations implementing NEPA require the identification of the environmentally preferred alternative. The environmentally preferred alternative for this EIS is Alternative 2, homeporting two LHDs at NAVSTA Mayport. LHD homeporting would require no dredging or other major construction activities compared to dredging and construction activities required to implement the Preferred Alternative to homeport a single CVN. As such, the Preferred Alternative (Alternative 4) would have greater environmental impact than the environmentally preferred alternative (Alternative 2) on earth resources, water resources, air quality, noise, biological resources, and utilities. While the environmentally preferred alternative would have less environmental impact than the Preferred Alternative, it does not address strategic concerns or reduce risks to critical Atlantic Fleet assets and infrastructure.

ENVIRONMENTAL IMPACTS: The EIS analyzed environmental impacts and the potential magnitude of those impacts relative to the following categories of environmental resources: earth resources, land and offshore use, water resources, air quality, noise, biological resources, cultural resources, traffic, socioeconomics, general services, utilities, and environmental health and safety. Analysis of these categories also included the radiological aspects of CVN homeporting. Only environmental impacts to NAVSTA Mayport and the project area were evaluated. There were no environmental impacts to the human environment outside of NAVSTA Mayport and the project area that were interrelated to the natural or physical environmental effects of the proposed action.

The environmental impact of implementing each alternative was evaluated against the 2006 baseline. The baseline year 2006 best represents recent and historical operations at NAVSTA Mayport, and 2014 represents the end-state year by which all alternatives evaluated in the EIS could be implemented. Many impacts were found to be common among the alternatives....

DECISION: After considering the environmental impacts analyzed in the EIS, the recurring and nonrecurring costs associated with homeporting additional surface ships at NAVSTA Mayport, and strategic implications of a second CVN homeport on the East Coast to support the Atlantic Fleet, the DON elected to implement Alternative 4, the Preferred Alternative. That alternative provides for homeporting one CVN at Naval Station (NAVSTA) Mayport. The DON decision does not immediately relocate a specific CVN to NAVSTA Mayport. It does initiate a multiyear process for developing operational, maintenance, and support facilities at NAVSTA Mayport to support homeporting of one CVN. This multiyear process includes implementing projects for dredging and dredged material disposal, construction of CVN nuclear propulsion plant maintenance facilities, wharf improvements, transportation improvements, and construction of a parking structure to replace existing parking that would be displaced by development of the CVN nuclear propulsion plant maintenance facilities. The projects necessary to create the capacity to support CVN homeporting could be completed as early as 2014.

No CVN homeport change will occur before operational, maintenance, and support facility projects are completed. Selection of the CVN to be homeported at NAVSTA Mayport would not occur until approximately one year prior to the ship's transfer to NAVSTA Mayport. Selection of a specific CVN for homeporting at NAVSTA Mayport will be based upon then current operational needs, strategic considerations, and maintenance cycles.

The most critical considerations in the DON's decision-making process were the environmental impacts associated with the action, recurring and nonrecurring costs associated with changes in surface ship homeporting options, and strategic dispersal considerations. The need to develop a hedge against the potentially crippling results of a catastrophic event was ultimately the determining factor in this decision-making process. The consolidation of CVN capabilities in the Hampton Roads area on the East Coast presents a unique set of risks. CVNs assigned to the West Coast are spread among three homeports. Maintenance and repair infrastructure exists at three locations as well. As a result, there are strategic options available to Pacific Fleet CVNs if a catastrophic event occurred. By contrast, NAVSTA Norfolk is homeport to all five of the CVNs assigned to the Atlantic Fleet and the Hampton Roads area is the only East Coast location where CVN maintenance and repair infrastructure exists. It is the only location in the U.S. capable of CVN construction and refueling. The Hampton Roads area also houses all Atlantic Fleet CVN trained crews and associated community support infrastructure. There are no strategic options available outside the Hampton Roads area for Atlantic Fleet CVNs if a catastrophic event occurred.

Environmental impacts: Environmental impacts were identified through studies and data collection efforts. The information culled from the studies and collected data was assessed and conclusions were drawn regarding the significance of environmental impacts. These conclusions, along with the underlying studies and data, were the subject of discussions and consultations with federal/state regulators over the course of the EIS process. This interagency process led to identification of mitigation measures, where appropriate, to address environmental impacts. Based on these consultations with regulators and their subject matter experts, the DON has committed to implementation of specific mitigation measures as outlined earlier in this Record of Decision. There are no environmental impacts associated with homeporting a CVN at NAVSTA Mayport that cannot be appropriately

addressed or mitigated, including impacts to endangered species such as the NARW, Florida Manatee, and sea turtles.

Recurring and nonrecurring costs: The DON's analysis and assessment of socioeconomic impacts in the EIS associated with the range of alternatives addressed short-term and long-term local economic impacts in the Mayport area. In addition to the socioeconomic impacts considered in the EIS, recurring and onetime costs associated with changes to surface ship homeporting were projected and considered in the DON's decisionmaking process. Recurring and nonrecurring costs for the preferred alternative are less than 10% of the cost of a single CVN and less than 1% of the cost of the DON's CVN assets. That investment in homeport capacity at NAVSTA Mayport provides additional security for CVN assets and enhances the DON's ability to maintain its effectiveness at a time when the ability to address contingencies and respond to the unexpected is essential. In terms of risk mitigation, DON gains a dispersal capability and its benefits at a fraction of the cost of an aircraft carrier.

Recurring costs included costs associated with Sustainment, Restoration, and Modernization (SRM), Base Operations Support (BOS), training, air wing transportation, nuclear maintenance labor, and Basic Allowance for Housing (BAH) for Sailors and their families. Sustainment costs are for activities necessary to keep facilities in good condition and therefore enable them to achieve their intended useful life. Restoration and Modernization costs are life-cycle investments required to provide for recapitalized facilities that support new missions, return facilities to good condition, and improve facilities beyond original conditions or capabilities. BOS costs included Facilities Operations costs such as Utilities, Facility Services, Facility Management, and Fire and Emergency Services.

Onetime costs included costs associated with MILCON projects (construction and Planning and Design), onetime maintenance costs for management and Industrial Plant Equipment (IPE) costs, and Permanent Change of Station (PCS) associated with the initial CVN homeport assignment at NAVSTA Mayport. PCS costs are those costs associated with moving the ship's crew and dependents to NAVSTA Mayport. PCS costs were estimated costs because the location from which crews and their families would be moved remains undetermined.

Strategic dispersal: The strategic dispersal of surface ships, especially vital strategic assets such as CVNs that serve our national interests in both peace and war, was assessed through examination of potential vulnerabilities. These potential vulnerabilities were examined in the context of operational, training and maintenance requirements of East Coast assets.

Strategic dispersal factors considered included: transit times to various deployment and training areas; shipping traffic volumes and associated risk of a maritime accident; port force protection postures and risk mitigation measures; integrated vulnerability and threat assessments; historic aircraft carrier loading; physical pier capacity; nuclear maintenance capability; homeporting options in response to a catastrophic event; geographic location of the aircraft carrier aircraft squadrons; transit times from port to the open sea; historic sortie rates due to hurricanes or other natural phenomena; and the risk to the ships, infrastructure and personnel who man, service and repair aircraft carriers associated with natural or man-made catastrophic events. In terms of these factors, the analysis concluded that the strategic value of NAVSTA Norfolk and NAVSTA Mayport as CVN homeports essentially was equal. The DON's strategic analysis, however, also demonstrated the value of having both NAVSTA Norfolk and NAVSTA Mayport as CVN homeports. Establishing CVN homeport capacity at NAVSTA Mayport can be accomplished without any adverse impacts on operations while at the same time providing the added strategic value of a second CVN homeport on the East Coast.

The most significant strategic advantage offered by development of an additional East Coast CVN homeport is a hedge against a catastrophic event that may impact NAVSTA Norfolk, the only existing CVN homeport for Atlantic Fleet CVNs. It is difficult to quantify the likelihood of a catastrophic event, whether natural or man-made. Nonetheless, there is a need to plan and prepare for any such event. That planning and preparation must address CVN maintenance and repair infrastructure as well as operational considerations. The fact that quantifying the likelihood of a catastrophic event is so difficult underscores the need to ensure that our planning and preparation efforts do not underestimate or overlook the long-term effects of such event. Hurricane Katrina is a clear and recent example. The level of devastation in New Orleans in the aftermath of Hurricane Katrina was so extensive and so pervasive that more than three years after Katrina hit, the New Orleans industrial infrastructure, work force, and community support functions have not fully recovered.

The potential impact of similar man-made or natural catastrophic events in the Hampton Roads area requires the DON to plan and prepare. A failure to do so presents an unacceptable risk. The aircraft carriers of the United States DON are vital strategic assets that serve our national interests in both peace and war. The President calls upon them for their unique ability to provide both deterrence and combat support in times of crisis. Of the 11 aircraft carriers currently in service, five are assigned to the Atlantic Fleet. NAVSTA Norfolk is homeport to all five of the CVNs assigned to the Atlantic Fleet and the Hampton Roads area is the only East Coast location where CVN maintenance and repair infrastructure exists. It is the only location in the U.S. capable of CVN construction and refueling. The Hampton Roads area also houses all Atlantic Fleet CVN trained crews and associated community support infrastructure. A second CVN homeport on the East Coast will provide additional CVN maintenance infrastructure, thereby providing added strategic value and allowing the DON to extract the added operational value of two CVN homeports in meeting its national defense obligations.

Homeporting a CVN at NAVSTA Mayport would provide strategic options in case of a catastrophic event in the Hampton Roads area, and enhance distribution of CVN assets, thereby reducing the risks to aircraft carriers and associated maintenance and repair infrastructure supporting those crucial assets....

CONCLUSION: The decision to create the capacity to homeport a CVN at NAVSTA Mayport represents the best military judgment of the DON's leadership regarding strategic considerations. In reaching that decision, the DON considered the environmental impacts analyzed in the EIS, comments from regulatory agencies as well as those received from members of the public, mitigation measures that would lessen the extent and severity of environmental impacts, recurring and nonrecurring costs, and the strategic implications of developing a second CVN homeport on the East Coast to support Atlantic Fleet operational, training and maintenance needs.

There will be no significant adverse environmental impacts associated with the CVN homeporting. That conclusion is based on the data collected and analyzed in the EIS, on interagency consultations, and on the mitigation measures developed as part of that consultation process.

The cost of developing a CVN homeport at NAVSTA Mayport was balanced against the strategic need to create a hedge against a catastrophic event in the Hampton Roads area. The cost of developing a CVN homeport at NAVSTA Mayport is more than offset by the added security for CVN assets and enhanced operational effectiveness provided by the ability to operate out of two homeports.

Ultimately, the need to develop a hedge against the potentially crippling results of a catastrophic event was the driver behind the decision to homeport a CVN at NAVSTA

Mayport. Developing a second CVN homeport on the East Coast not only reduces potential risk to CVN assets through dispersal of those critical assets, it provides some maintenance and repair infrastructure and ensures access to that infrastructure by CVNs deployed at the time a catastrophic event in Hampton Roads occurred. Mayport allows DON to obtain the advantages of fleet dispersal and survivability without impacting operational availability. On the West Coast DON has accepted reduced operational availability in the interest of dispersal. By homeporting CVNs in the Northwestern U.S., DON loses operational availability during the additional transit time required to reach operational and training areas. By establishing a second CVN homeport on the East Coast, DON can gain the dispersal advantage without the increased transit time. The proximity to training areas and transit time to operating areas is about equal from Norfolk and Mayport.

West Coast CVN homeports and maintenance facilities are not viable options in planning for Atlantic Fleet CVN assets in the event a catastrophic event occurs in the Hampton Roads area. The nuclear powered aircraft carriers are too large to transit the Panama Canal, requiring a 12,700 nautical mile voyage around South America to reach the closest CVN homeport on the West Coast at [⁶⁴]San Diego.

Neither the DON, nor the nation, nor its citizens can wait for a catastrophic event to occur before recognizing the potential impacts of such an event and appropriately planning and preparing for continuity of operations. This lesson was learned all too well in the aftermath of recent catastrophic events such as Hurricane Katrina. The DON looked at the possible crippling effects - immediate and long-term - of a catastrophic event in the Hampton Roads area and recognized its responsibility to develop a hedge against such an event. That hedge is homeporting a CVN at NAVSTA Mayport and developing the requisite operational, training, maintenance and support facilities.

Homeporting one CVN at NAVSTA Mayport best serves the interests of the DON and the nation, and can be accomplished in a manner that keeps environmental impacts at a less than significant level.⁶⁵

⁶⁴ At this point in the text, a handwritten note deletes the word "NAVSTA."

⁶⁵ Department of the Navy, *Record of Decision for Homeporting of Additional Surface Ships at Naval Station Mayport, Florida*, January 14, 2009, pp. 1-2, 5-6, 18-22, 31-32.

Appendix D. Navy Data on Hurricane Risk

This appendix presents information that the Navy has provided regarding the risk of hurricanes at Norfolk and Mayport.

Navy Briefing Slide

Figure D-1 is a Navy briefing slide on relative hurricane risk for the port of Norfolk and the port of Jacksonville, which is near Mayport.

Figure D-I. Navy Briefing Slide on Relative Hurricane Risk



Relative Hurricane Risk*

	Major Hurricanes (3,4,5)		All Hurricanes (1-5)		Noteable (Safir - Simpson @ landfall)	Deaths	Damage (not adjusted)	Strength at landfall	
	Return Period	Last Direct Hit	Return Period	Last Direct Hit				Mb	Winds
Norfolk	43 yr	<1851	10 yr	2003 (2) Isabel	2003 Isabel (2)	51	\$3.37B	957	90
Jacksonville	28	<1880	9	1964 (2) Dora	1964 Dora (2)	1	\$1.9B	966	?

Other Noteables

New Orleans	19	2005 (3) Katrina	8	2005 (3) Katrina	2005 Katrina (3)	1500	\$81B	920	110
Galveston	18	1983 (3) Alicia	7	1989 (1) Jerry	1900 Galveston (4)	8000 (up to 12000)	\$494M	936	125
Miami-Dade	9	1992 (5) Andrew	4	2005 (2) Wilma	1992 Andrew (5)	65	\$26B	922	145
Pensacola	17	2005 (3) Dennis	7	2005 (3) Dennis	2004 Ivan (3)	25	\$14.2B	946	105

All US Hurricanes 1851-2006	
Category	Landfall
5	3
4	18
3	75
2	73
1	110
Total	279
Major (3-5)	96
Avg / yr	5.3 / yr
Major / yr	1.8 / yr

*1851-2006 data from NOAA Technical Manual NWS TPC-5 (Apr 2007)

Hurricane Risk likely only in direct hit from a Major (3-5) Hurricane

- Risk will predominantly be to infrastructure
- Ships will likely sortie away from incoming Hurricane
 - But will they have someplace to return?

It only takes one direct hit!

- Think 1992 Hurricane Andrew and Homestead AFB

Historically - Hurricane risk to Norfolk is similar to Jacksonville

Source: Slide entitled "Relative Hurricane Risk," from Navy briefing entitled "Final Environmental Impact Statement (FEIS) for the Proposed Homeporting of Additional Surface Ships at Naval Station Mayport, FL," November 18, 2008, presented to CRS on December 5, 2008.

Excerpt from DOD Information Paper

In response to questions and requests for information from congressional offices, the Navy in December 2008 provided, among other things, supplementary historical data regarding hurricanes in the Hampton Roads area and Mayport and their effect on Navy facilities and ship operations. The questions/requests for information regarding hurricanes, and the Navy's responses, are reproduced below.⁶⁶

QUESTION/REQUEST: How much collateral damage did Norfolk and Mayport sustain from hurricanes that did NOT make a direct hit over the analyzed time period of 1851-2006?

RESPONSE:

a. MAYPORT:

Since 1995, 8 named storms—of which 1 was a hurricane—have had a CPA of 75 nm or closer to NAVSTA Mayport

From 1851-2008, there were 51 tropical cyclones that were classified as hurricanes at some point in their life that passed within 180 nm of Mayport. Of these, 22 came within 50 nm.

Collateral damage (back to 2004): \$6.1M

b. NORFOLK:

Since 1995, 15 named storms—of which 4 were hurricanes—came within 75 nm or closer to NAVSTA Norfolk

From 1851-2008, there were 54 tropical cyclones that were classified as hurricanes at some point in their life that passed within 180 nm of Norfolk. Of these, 14 came within 50 nm.

Collateral damage (all hurricanes, direct hit and near miss back to 1999): \$11.8M

c. Some ships undergoing maintenance must occasionally remain in port during hurricanes. A review of records since the 2004 hurricane season indicated no resulting ship damage for those ships remaining inport.

QUESTION/REQUEST: How much hurricane damage has NAVSTA Norfolk and NAVSTA Mayport sustained over the time period analyzed?

RESPONSE: Historical hurricane damage costs available include:

Mayport:

⁶⁶ Source: Department of Defense information paper responding to questions from congressional offices, dated December 19, 2008, and provided to CRS on January 6, 2009, questions/requests 5 through 10. The reproduction here omits the question/request numbers and incorporates some slight formatting changes to accommodate CRS report formatting. NAVSTA means Naval Station (a home port), CPA means closest point of approach, nm means nautical mile, M means millions (of dollars). The Navy informed CRS that this data accounts for all hurricanes that have affected Mayport or Norfolk, including hurricanes that approached Mayport from the west. (Department of Defense information paper responding to questions from CRS, dated December 23, 2008 and provided to CRS on January 6, 2009.)

FY04: \$1.2M

FY05: \$4.1M

FY08: \$0.8M

Norfolk

FY99: \$1.0M

FY03: \$10.8M

QUESTION/REQUEST: How many evacuation orders (sorties) have been issued to Navy ships at Norfolk and Mayport because of inclement weather? Provide historical data to the maximum extent possible.

RESPONSE: Since 1995, ships at Mayport have sortied 6 times and ships at Norfolk have sortied 5 times:

a. Mayport:

i. Bertha (1996)

ii. Bonnie (1998)

iii. Floyd (1999)

iv. Charley (2004)

v. Ophelia (2005)

vi. Fay (2008)

b. Norfolk:

i. Felix (1995)

ii. Bertha (1996)

iii. Bonnie (1998)

iv. Floyd (1999)

v. Isabel (2003)

Carrier Sorties due to Hurricanes

Dates	Units Affected	Type of Impact	Homeport
8-10 Sep 05	USS JOHN F KENNEDY	Dedicated sail, hurricane avoidance	Mayport
16-20 Sep 03	USS THEODORE ROOSEVELT	Extended underway, hurricane avoidance	Norfolk
11-20 Sep 03	USS GEORGE WASHINGTON	Interrupted carrier qualifications, hurricane avoidance	Norfolk
16-20 Sep 03	USS RONALD REAGAN	Dedicated sail, hurricane avoidance	Norfolk
22-27 Sep 02	USS HARRY S TRUMAN	Already underway for COMPTUEX, hurricane avoidance	Norfolk
14-17 Sep 99	USS JOHN F KENNEDY	Dedicated underway 5 days prior to deployment	Mayport
15-18 Sep 99	USS DWIGHT D EISENHOWER	Dedicated sail, hurricane avoidance	Norfolk
15-18 Sep 99	USS GEORGE WASHINGTON	Dedicated sail, hurricane avoidance	Norfolk
15-18 Sep 99	USS HARRY S TRUMAN	Dedicated sail, hurricane avoidance	Norfolk
25-28 Aug 98	USS ENTERPRISE	Dedicated sail, hurricane avoidance	Norfolk
22-26 Aug 98	USS JOHN F KENNEDY	Delayed return to homeport, hurricane avoidance	Mayport
25-27 Aug 98	USS THEODORE ROOSEVELT	Dedicated sail, hurricane avoidance	Norfolk
15-19 Aug 95	USS AMERICA	Dedicated sail, hurricane avoidance during POM	Norfolk
15-20 Aug 95	USS GEORGE WASHINGTON	Dedicated sail, hurricane avoidance	Norfolk
30 Aug-02 Sep 93	USS JOHN F KENNEDY	Dedicated sail, hurricane avoidance	Norfolk
24 Aug 92	USS FORRESTAL	Dedicated sail, hurricane avoidance	Pensacola

Notes:

Data prior to 1992 is incomplete for tracking of hurricane sorties.

QUESTION/REQUEST: Have any Navy ships remained pierside during past hurricane evacuation orders? If so, what happened?

RESPONSE: No records exist that indicate any aircraft carriers were unable to sortie. Note: Shipyards are designated “safe havens,” therefore CVNs in the shipyards are not required to sortie. Recent examples of non-aircraft carriers remaining inport during hurricanes include:

a. In August 2005, the following ships were pierside at Northrop Grumman Shipbuilding—Ingalls Operations and NGSB Avondale Operations during Hurricane Katrina:

- i. DDG 98 (FORREST SHERMAN)
- ii. DDG 100 (KIDD)
- iii. LPD 17 (SAN ANTONIO)
- iv. LPD 19 (MESA VERDE)

v. LPD 18 (NEW ORLEANS)

LPD 17 and DDG 98 sustained minor damage during the storm and DDG 100 sustained more extensive hull damage. The cost of repairs is classified as “Business Sensitive.”

b. During hurricanes Gustav and Ike in 2008, the following ships were pierside at NGSB Avondale and NGSB Ingalls and did not sustain any damage:

i. LPD 20 (GREEN BAY)

ii. DDG 103 (TRUXTUN)

iii. DDG 105 (DEWEY)

QUESTION/REQUEST: Historically, how have hurricanes negatively affected CVN operations on the East Coast?

RESPONSE: Hurricanes can and have affected aircraft carrier operations during all phases of the carrier schedule. CVNs inport will sortie when directed by the Fleet Commander and conduct hurricane avoidance. CVNs underway for training will suspend or cancel training evolutions and maneuver to avoid the hurricane’s predicted track.

QUESTION/REQUEST: Compare the amount of time required to sortie ships from Norfolk and Mayport.

RESPONSE: Following issuance of the sortie order, ships in Mayport require approximately 1 hour to reach the open sea and ships in Norfolk require between 4 to 4.5 hours to reach open sea.

QUESTION/REQUEST: When, if ever, has the Navy NOT been able to sortie ships?

RESPONSE: Ships in maintenance at Norfolk Naval Shipyard and Northrop Grumman Newport News Shipbuilding do not sortie since the shipyards are considered safe havens for ships during hurricanes. No records exist that indicate any aircraft carriers not in safe havens were unable to sortie.

Appendix E. Examples of Views from Members

This appendix presents examples of views from Members regarding the Navy's desire to homeport a CVN at Mayport. These views are presented as examples only.

Views of Members from Florida

An October 23, 2009, press release from the office of Representative Ander Crenshaw states:

WASHINGTON, DC—United States Senators George LeMieux (R-FL) and Bill Nelson (D-FL) and Representatives Ander Crenshaw (R-Jacksonville) and Corrine Brown (D-Jacksonville) signed and mailed the following letter to President Obama in advance of his trip to North Florida on October 26. The letter (10/22) underscores the importance of having two East Coast aircraft carrier homeports and calls on President Obama to reaffirm his commitment to strategic dispersal of critical assets such as aircraft carriers. The full text of the document reads:

Dear President Obama:

We are happy to hear you are traveling to the great state of Florida soon. While in the state, we hope you are able to see the many military strategic strengths Florida provides this Nation. We are home to the largest Air Force Base, Eglin, and Naval Station Mayport, the third largest naval port in the continental United States.

Early this year, the Department of the Navy concluded an exhaustive two and a half year study weighing the strategic, operational and environmental consequences of upgrading Naval Station Mayport to homeport a nuclear carrier, and the upgrades must be done since consolidating ALL nuclear carrier homeporting and maintenance in one East Coast location greatly hampers the Navy's strategic options.

Prior to 2007, the Navy had operational flexibility on the East Coast with carriers stationed both at Naval Station Norfolk and Naval Station Mayport. However, the Navy lost the flexibility with the decommissioning of the last East Coast conventional carrier in 2007. In order to reduce risk to the Atlantic Fleet carrier force and restore the proper balance to the Navy, Naval Station carriers and maintenance facilities are spread among three homeports. In fact, in a December 2008 letter to Senator Jim Webb, Secretary Gates reinforced the concept of strategic dispersal stating, "Having a single CVN homeport has not been considered acceptable on the west coast should not be considered acceptable on the east coast."

The Norfolk area is the only east coast port in which nuclear aircraft carriers are repaired, built and housed. If tragedy, man-made or nature-related, intentional or accidental, rendered Norfolk out of reach the Navy would be forced to journey around the tip of South America to reach another nuclear aircraft carrier maintenance facility in San Diego, CA. While some would like to believe this is an acceptable back-up plan, common sense demands otherwise.

Time and time again, aircraft carriers have proven to be key to the execution of our national security strategy. We believe as access to overseas land bases continues to decrease, the Navy's aircraft carriers will be more and more important. The Navy has alternate homeporting and maintenance options for all ships on the East Coast except aircraft carriers, its most valuable assets. The total cost for permanently homeporting a nuclear aircraft carrier at Mayport is less than 1% of the cost of the nuclear carrier fleet. While the cost is not

inconsequential, when weighed against the possible risks to our carrier fleet, upgrading Mayport to homeport a nuclear carrier is a sound national security expense. The Department MUST make this investment in Naval Station Mayport to provide flexibility to the Combatant Commanders and protection to some of the nation's most valuable assets.

While you are in Jacksonville, we encourage you to reaffirm the county's commitment to the protection and the flexibility that strategic dispersal affords. We look forward to continuing to provide the best homeport in the Navy.⁶⁷

Views of Members from Virginia

The website of the office Representative Glenn Nye presents a March 9, 2010, letter to Secretary of the Navy Ray Mabus and then-Chief of Naval Operations Admiral Gary Roughead on the desire to homeport a CVN at Mayport. The letter is signed by Senators Jim Webb and Mark R. Warner, Representatives Glenn C Nye III, J. Randy Forbes, Robert C. "Bobby" Scott, and Robert J. Wittman, and 27 other persons who are not Members of Congress. The text of the letter states:

Dear Secretary Mabus and Admiral Roughead:

We are the Hampton Roads Military Affairs Commission, a newly formed group from Virginia's Hampton Roads area, one of the largest military areas in the world. Our more than 30 members are experts and leaders in their respective fields, including elected officials, retired military officers and business leaders. In today's fiscal environment, we recognize that you encounter difficult tradeoffs as you seek to balance competing priorities and ensure necessary funding for aircraft procurement, building and maintaining our naval fleet, military construction, and taking care of our sailors. Like you, we fully support the Navy's goal to build a fleet of no fewer than 313 ships.

We care deeply about national security and the future of our Navy. For this reason, we write today regarding the Quadrennial Defense Review (QDR) and its recommendation to construct facilities to support homeporting a nuclear-powered aircraft carrier (CVN) at Naval Station (NAVSTA) Mayport. We respectfully request that you provide us with a business-case analysis that objectively addresses the financial and operational tradeoffs of this proposal, as well as the threat assessment that warrants such an undertaking. We believe a more comprehensive public accounting is necessary before any change in East Coast homeporting is considered. We hope you will provide answers to our questions in the following areas:

Creating a CVN homeport at NAVSTA Mayport is estimated to cost between \$600 million and \$1 billion when all one-time and recurring annual costs are calculated. In the current economic climate and with today's high operating tempo, the Navy has numerous unfunded priorities. If the cost of homeporting is \$600 million to \$1 billion, what specific elements of current year and out-year projects will be decremented from the budget to provide the money?"

There is a pressing need for a more comprehensive strategic-risk assessment. The DoD has extensive capabilities to quantify risk and empirically evaluate the trade-offs and cost-benefit factors associated with any major investment. With respect to the proposed carrier homeport at NAVSTA Mayport, we have yet to learn of a strategic assessment or rigorous risk-based

⁶⁷ The press release is available at http://crenshaw.house.gov/index.cfm?p=PressReleases&ContentRecord_id=829f1386-19b9-b4b1-1250-b4a52694f924.

analysis that would identify the specific reasons for executing what is potentially a \$1 billion decision. To date, in seeking to justify this project, the Navy has said that the risk that a catastrophic event could close Hampton Roads is “low.”

The phrase “strategic dispersal” has been used by many as an intuitive argument to justify the creation of an additional East Coast homeport for a CVN. However, we are concerned this argument also creates a slippery slope akin to a “reverse BRAC”. Under Secretary for Policy Michelle Flournoy, testifying before the House Armed Services Committee, recently said that the logic of strategic dispersal also applies to other singularly based assets and infrastructure, to include fleet ballistic missile submarines. The immense cost and time of carrying out this additional dispersal would be extraordinary. What specific guidance has the Navy received, if any, to provide for strategic dispersal of any high value assets and infrastructure (carriers, subs, facilities)? Would this dispersal philosophy apply to other critical infrastructure such as the Pentagon or the U.S. Capitol?

Even with one less CVN, NAVSTA Norfolk would remain the world’s largest Naval Station and should be protected as such. Hundreds of millions of dollars have already been spent since 9/11 to improve port and base security in the Hampton Roads region. What security improvements are required in Mayport to accommodate a CVN and at what cost? Secondly, the Navy has cited the concern over possible blockage (either by natural or manmade causes) of the Norfolk channel. If harbor blockage of current CVN ports is considered a risk, are there any plans to mitigate the risk?

Significant increases in personnel, both military and federal employees, will be required to accommodate a new CVN homeport. Have the corresponding billets been identified for funding? What is the manning increase required for 2013 and 2014 when the CVN is scheduled to be home ported at Mayport? What is the overall manning plan for the CVN move? Specifically, is there a plan detailing the station manning and the requirement for temporary additional duty (TAD) sailors? What is this recurring cost? What is the impact of such temporary assignments on the ability to support remaining CVN activities at Norfolk and what will the quality of life impact be on sailors and shipyard workers who will be away from home for additional periods of time if a CVN is homeported at NAVSTA Mayport?

When the USS Kennedy (CV 67) left NAVSTA Mayport in 2007, much of the existing carrier-support infrastructure was decommissioned. If creating a new CVN homeport is of strategic importance, as some have indicated, why would the Navy decommission existing support infrastructure at Mayport only to rebuild much of it a few years later? What specific capabilities must be re-established and at what cost?

Precisely what CVN maintenance will be supported at NAVSTA Mayport after all facilities have been constructed? How often and for how long will the Navy need to return the CVN to Norfolk for maintenance availabilities that are beyond the capability of fly-away teams?

The Navy’s Final Environmental Impact Statement (FEIS) proposes building nuclear propulsion repair facilities, but there is no mention of conventional requirements such as catapult and arresting gear maintenance. What conventional maintenance will be done by the maintenance personnel at NAVSTA Mayport?

While the FEIS addressed possible local economic impacts at Mayport, why did the FEIS neglect a corresponding socio-economic evaluation of Norfolk? With the decommissioning of USS Enterprise (CVN 65) and a follow-on change in homeport for another Norfolk-based carrier to Mayport, why didn’t the FEIS evaluate the negative impact on Norfolk’s local housing market, schools, jobs, and small businesses?

Thank you for taking the time to look into these queries. We commend you for your leadership. As this process evolves, we look forward to developing a better dialogue to ensure the concerns and issues we have identified are addressed in a timely, responsive way.

The Commission's point of contact is John Panneton, Military Liaison for Congressman Glenn Nye, who can be reached at 757-326-6201, or 4772 Euclid Road, Suite E, Virginia Beach, VA 23462.⁶⁸

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⁶⁸ The letter is available at http://nye.house.gov/uploads/030910_HRMAC_Letter.pdf.